

Section 1 Project Records and Reports

5-101 Forms Used For Contract Administration

5-101A General

One of the duties of the resident engineer is to keep accurate and complete records of the work. This section includes a list of forms used in administering a construction project and maintaining records. Use forms not related directly to contract administration, such as personnel documents and accounting forms, in accordance with instructions contained in other Caltrans manuals.

The Division of Construction issues new or revised construction forms. All Division of Construction forms have a prefix of CEM and a number that is related to the form's uniform filing system category. If an existing form no longer meets the need that it was designed for, use the following procedure to implement a change:

- Complete Form CEM-9001, "Construction Manual Proposed Change", and send it to the Division of Construction forms coordinator. Explain the reason for the proposed change and attach a draft of the proposed revised form.
- The Division of Construction will review the proposed change and make a decision regarding any future revision.

Not all forms issued by the Office of Materials Engineering and Testing Services (METS) are listed in this manual. If a test method includes a specific form, contact METS.

A list of forms issued by the Division of Structure Construction is shown in Volume I, Section 16 of the *Bridge Construction Records and Procedures Manual*.

5-101B Construction Forms

Order construction forms by stock number from district warehouses or stockrooms. Forms without stock numbers may be found on the Caltrans Electronic Form System's (CEFS) Intranet web site: <http://adsc.caltrans.ca.gov/CEFS/>. The appendix to the *Construction Manual* (manual) contains samples of the construction forms.

Following is a list and descriptions of the Division of Construction forms:

Form CEM-0101, Resident Engineer's Report of Assignment

When assigned to a new project, the resident engineer must use Form CEM-0101, "Resident Engineer's Report of Assignment." This provides contact information. Distribute copies of the report according to instructions on the form and any district instructions.

It is not necessary or desirable to hold the form until all information is available. Submit partial information with a note that a supplemental form will follow.

Section 1 Project Records and Reports

5-101 Forms Used For Contract Administration

Form CEM-0501, Relief from Maintenance

The resident engineer uses Form CEM-0501, “Relief from Maintenance,” to recommend that the contractor be relieved from maintenance and responsibility in accordance with Section 7-1.15, “Relief from Maintenance and Responsibility,” of the *Standard Specifications*. For more information see Section 3-709, “Relief from Maintenance and Responsibility,” of this manual.

Form CEM-0601, Construction Safety Report

The resident engineer or the project safety coordinator uses Form CEM-0601, “Construction Safety Report,” to document monthly project safety reviews.

Form CEM-0602, Project Safety Program Statement

The resident engineer uses Form CEM-0602, “Project Safety Program Statement,” to list the Code of Safe Practices which apply to the project. This form may also be used to designate an employee as the project safety coordinator.

Form CEM-0603, Major Construction Incident Notification

The resident engineer uses Form CEM-0603, “Major Construction Incident Notification,” to report major construction incidents. Instructions for use are included on the back of the form.

Form CEM-1101, Documents Bond of State Highway Oversight Projects

The local agency and Caltrans project manager complete Form CEM-1101, “Documents Bond of State Highway Oversight Projects.” The project manager submits the form to the encroachment permits unit when local agencies have failed, in the past, to produce and submit required documents at the completion of a previous contract they administered on the state highway system. For details on the use of this form, see Section 4-101, “Projects with Documents Bond,” of the *Caltrans Oversight Engineer Field Guidelines*.

Form CEM-1201, Subcontracting Request (Stock # 7541-3514-7)

The contractor submits Form CEM-1201, “Subcontracting Request.” The resident engineer uses the form to calculate the percentage of work to be performed by the contractor. Section 2-08, “Prosecution and Progress,” of this manual describes the procedures. The resident engineer must approve this form before the contractor can begin on the applicable subcontracted work. Before approval, verify that subcontractors are not on the Debarred Contractors list on the Division of Construction’s web site.

Form CEM-1202, Contractor Action Request - Change of Name/Address - Assignment of Contract Monies

The contractor submits Form CEM-1202, “Change of Name/Address -Assignment of Contract Monies,” to the resident engineer to request a change in the contractors name or address or to request an assignment of monies due or to become due the contractor under the contract in accordance with Section 8-1.02, “Assignment,” of the *Standard Specifications*.

Form CEM-1203, Contractor Action Request - Assignment of Contract Performance

The original contractor or the contractor’s surety submits Form CEM-1203, “Assignment of Contract Performance,” to the resident engineers in accordance with Section 8-1.02, “Assignment,” of the *Standard Specifications*.



Form CEM-2001, National Pollution Discharge Elimination System Annual Certification

The resident engineer uses Form CEM-2001, “National Pollution Discharge Elimination System Annual Certification,” to file the annual storm water permit certification by July 1 of each year. See Chapter 7, “Environmental,” for details on the storm water permit certification.

Form CEM-2002, Notification of Construction (NOC)

The resident engineer, with the assistance of the district construction storm water coordinator, fills out Form CEM-2002, “Notification of Construction (NOC).” The Caltrans National Pollutant Discharge Elimination System Permit requires Caltrans to submit the notification to the Regional Water Control Board. Instructions are included on the back of the form.

Form CEM-2003, Notification of Completion of Construction (NCC)

Submits Form CEM-2003, “Notification of Completion of Construction (NCC),” for projects requiring a storm water pollution prevention plan to the Regional Water Quality Control Board upon completion of construction. Usually, the resident engineer submits the notification. However, districts may elect to have the storm water coordinator, project manager, construction engineer, or other responsible staff submit this form. This form is not required for water pollution control plan projects. Directions are on the back of the form.

Form CEM-2004, Notification of Completion of Construction (Desert Areas)

The resident engineer or district storm water coordinator submits Form CEM-2004, “Notification of Completion of Construction (Desert Areas),” for projects requiring a storm water pollution prevention plan for region 6 or 7 of the California Regional Water Quality Control Board.

Form CEM-2025, Solid Waste Disposal and Recycling Report

The contractor completes and certifies the information reported on Form CEM-2025, “Solid Waste Disposal and Recycling Report.” The resident engineer reviews all reports submitted by the contractor for accuracy. The resident engineer submits the approved form directly to the district recycling coordinator and a copy of the statewide recycle coordinator in headquarters Division of Design. The use of this form is described in Section 7-109, “Solid Waste Disposal and Recycling Reporting,” of this manual.

Form CEM-2101, COZEEP Daily Report

Jointly, The California Highway Patrol and Caltrans use Form CEM-2101, “COZEEP Daily Report,” to report highway patrol resources used for the Construction Zone Enhanced Enforcement Program. Chapter 2, “Safety and Traffic,” of this manual describes the use of Form CEM-2101.

Form CEM-2102, COZEEP/MAZEEP Task Order

The resident engineer uses Form CEM-2102, “COZEEP/MAZEEP Task Order,” to request highway patrol support for the Construction Zone Enhanced Enforcement Program. The use of this form is described in Section 2, “Safety and Traffic,” of this manual.

Form CEM-2103, COZEEP/MAZEEP Cancellation Form

The resident engineer uses Form CEM-2103, “COZEEP/MAZEEP Cancellation Form,” to cancel any previously requested highway patrol support for the Construction

Zone Enhanced Enforcement Program. The use of this form is described in Section 2, “Safety and Traffic,” of this manual.

*Form CEM-2401, Substitution Report for Disadvantaged Business Enterprise/
Disabled Veteran Business Enterprise*

The contractor fills out Form CEM-2401, “Substitution Report for Disadvantaged Business Enterprise/Disabled Veteran Business Enterprise.” The resident engineer uses the form to approve disadvantaged business enterprise (DBE) subcontractor substitutions. For more information on substituting subcontractors refer to Sections 3-8, “Prosecution and Progress,” and 8-3, “Disadvantaged Business,” of this manual.

*Form CEM-2402(F), Final Report- Utilization of Disadvantaged Business
Enterprises (DBE), First - Tier Subcontractors (Federally
Funded Projects)*

The contractor fills out and certifies Form CEM-2402(F), “Final Report- Utilization of Disadvantaged Business Enterprises (DBE), First - Tier Subcontractors (Federally Funded Projects).” The resident engineer verifies the form. It describes work performed and materials provided by disadvantaged business enterprise subcontractors. See Section 8-3, “Disadvantaged Business,” of this manual for details.

*Form CEM-2402(S), Final Report - Utilization of Disabled Veteran Business
Enterprises (DVBE) State Funded Projects*

The contractor fills out and certifies Form CEM-2402(S), “Final Report - Utilization of Disabled Veteran Business Enterprises (DVBE) State Funded Projects.” The resident engineer verifies the form. It describes work performed and materials provided by disabled veteran business enterprise subcontractors on state funded projects. See Section 8-3, “Disadvantaged Business,” of this manual for details.

*Form CEM-2403(F), Disadvantaged Business Enterprises (DBE) Certification
Status Change*

The contractor fills out and certifies Form CEM-2403(F), “Disadvantaged Business Enterprises (DBE) Certification Status Change.” The resident engineer uses this form to verify the actual dollar amount paid to DBE subcontractors on federally funded projects that have a change in certification status during the course of the contract. See Section 8-3, “Disadvantaged Business,” of this manual for details.

Form CEM-2404(F), Monthly DBE Trucking Verification

The contractor must submit Form CEM-2404(F), “Monthly DBE Trucking Verification,” before the 15th of each month. It lists the dollar amount paid to the DBE trucking companies for truck work performed by DBE certified truckers and for any fees or commissions for non-DBE truckers utilized each month on the project. Instructions for filling out this form are on the back of the form.

Form CEM-2501, Fringe Benefit Statement

The contractor completes Form CEM-2501, “Fringe Benefit Statement,” for labor compliance purposes. See Section 8-1, “Labor Compliance,” of this manual for more information.

Form CEM-2502, Contractor/Subcontractor Payroll

When it is requested, furnish “Form CEM-2502, Contractor/Subcontractor Payroll,” to the contractor. It is used to fulfill the payroll submittal requirements of the contract. See Section 8-1, “Labor Compliance,” of this manual for more information.

Form CEM-2503, Statement of Compliance

The contractor may use Form CEM-2503, “Statement of Compliance,” for the required statement of compliance with payroll submittals. See Section 8-1, “Labor Compliance,” of this manual for more information.

Form CEM-2504, Employee Interview: Labor Compliance/EEO
(Stock # 7541-3512-3)

Use Form CEM-2504, “Employee Interview: Labor Compliance/EEO,” to record information from interviews of contractors’ employees. Directions to interviewer are on the back of the form. See Section 8-1, “Labor Compliance,” of this manual for more information.

Form CEM-2504 (Spanish), Entrevista de Empleado: Labor Compliance/EEO

Same as above. Form printed in Spanish.

Form CEM-2505, Owner - Operator Listing Statement of Compliance

If they do not include this data on their certified payrolls, contractors may use Form CEM-2505, “Owner - Operator Listing Statement of Compliance,” for reporting payments made to owner-operators. See Section 8-1, “Labor Compliance,” of this manual for more information.

Form CEM-2506, Labor Compliance – Wage Violation

The district labor compliance officer uses Form CEM-2506, “Labor Compliance – Wage Violation,” to document labor compliance wage violations. See Section 8-1, “Labor Compliance,” of this manual for more information.

Form CEM-2507, Labor Violation: Case Summary

The district labor compliance officer uses Form CEM-2507, “Labor Violation: Case Summary,” in conjunction with Form CEM-2506 to summarize labor violation cases. See Section 8-1, “Labor Compliance,” of this manual for more information.

Form CEM-2508, Contractor’s Payroll Source Document Review

The district labor compliance officer uses Form CEM-2508, “Contractor’s Payroll Source Document Review” to document the verification of the contractors’ payroll source document review. See Section 8-1, “Labor Compliance,” of this manual for more information.

Form CEM-2509, Checklist – Source Document Review

The district labor compliance officer uses Form CEM-2509, “Checklist – Source Document Review,” during the contractor’s payroll source document review. See Section 8-1, “Labor Compliance,” of this manual for more information.

Form CEM-2601, Construction Progress Chart

The resident engineer maintains Form CEM-2601, “Construction Progress Chart,” for each project. See Section 3-8, “Prosecution and Progress,” of this manual for details.

Form CEM-2701, Weekly Statement of Working Days (Stock # 7541-3528-7)

The resident engineer uses Form CEM-2701, “Weekly Statement of Working Days,” to track contract time on construction contracts. The back of the form and Section 3-8, “Prosecution and Progress,” of this manual contain instructions for filling out the weekly statement of working days.

Form CEM-2702, Overrun in Contract Time

The Division of Construction uses Form CEM-2702, “Overrun in Contract Time,” to approve “director days.” For more information see Section 3-8, “Prosecution and Progress,” of this manual.

Form CEM-3101, Notice of Materials to Be Used (Stock # 7541-3511-1)

The contractor must use Form CEM-3101, “Notice of Materials to Be Used,” to list all materials to be used on the project. See Section 6-2, “Acceptance of Manufactured Material and Sampling Methods,” of this manual for details on the use of this form. Instructions to the contractor are on the back of the form.

Form CEM-3501, AC Production/Placement Checklist

Resident engineers and assistant resident engineers may use Form CEM-3501, “AC Production/Placement Checklist,” to identify asphalt concrete paving problems.

Form CEM-3701, Test Result Summary

Resident engineers may use Form CEM-3701, “Test Result Summary” to summarize acceptance tests on each material. See Category 37, “Initial Tests and Acceptance Tests,” in Section 5-102, “Organization of Project Documents,” of this manual for details.

Form CEM-3702, Relative Compaction Summary

Resident engineers may use Form CEM-3702, “Relative Compaction Summary,” to summarize compaction test results in the same manner that Form CEM-3701 is used for other tests.

Form CEM-4101, Materials Release Summary

Resident engineers use Form CEM-4101, “Materials Release Summary,” to summarize the materials released by METS and materials inspected at the job site.

Form CEM-4102, Material Inspected and Released on Job

Resident engineers use Form CEM-4102, “Material Inspected and Released on Job,” to list certain materials that may arrive on the job site without a Form TL-0029, “Report of Inspection of Material.” See Section 6-3, “Field Tests,” of this manual for details.

Form CEM-4202, Material Plant Safety Checklist

The materials plant inspector uses Form CEM-4202, “Material Plant Safety Checklist,” when checking a materials plant for safety.

Form CEM-4204, California Test 109 Sticker

The district weights and measures coordinator affixes Form CEM-4204, “California Test 109 Sticker” to each scale tested in accordance with California Test 109. Obtain the form from the Division of Construction weights and measures coordinator. Sample form not in appendix. See Section 3-903E, “Weighing and Metering Procedures,” of this manual for details.

Form CEM-4501, Resident Engineer’s Daily Report/Assistant Resident Engineer’s Daily Report (Stock # 7541-3506-1)

The resident engineer and the assistant resident engineers use Form CEM-4501, “Resident Engineer’s Daily Report/Assistant Resident Engineer’s Daily Report,” to record project activities daily. For more information see Section 5-0, “Conduct of the Work,” of this manual.

Form CEM-4601, Assistant Resident Engineer's Daily Report
(Stock # 7541-3504-6)

Assistant resident engineers use Form CEM-4601, "Assistant Resident Engineer's Daily Report," to record daily individual contract item activity. It is also used to record extra work activity and to verify contractors' personnel listed on payrolls. For more information see Section 5-0, "Conduct of the Work," of this manual.

Form CEM-4701, Drainage System Summary (Stock # 7541-3521-2)

Resident engineers and assistant resident engineers use Form CEM-4701, "Drainage System Summary," to record progress and summarize activity on drainage contract items. See category 47, "Drainage Systems," in Section 5-102, "Organization of Project Documents," of this manual for details.

Form CEM-4801, Quantity Calculations (Stock # 7541-3520-0)

Resident engineers and assistant resident engineers use Form CEM-4801, "Quantity Calculations," for the basic source document for most contract item quantity calculations.

Form CEM-4900, Contract Change Order (Stock # 7541-3501-0)

Resident engineers use Form CEM-4900, "Contract Change Order," for contract change orders. See Section 5-3, "Contract Change Orders," of this manual for information about contract change orders.

Form CEM-4901, Contract Change Order Input (Stock # 7541-3516-2)

Resident engineers and assistant resident engineers use Form CEM-4901, "Contract Change Order Input," to input contract change orders for the project record and estimate data. See Section 5-103D, "Contract Change Orders," of this manual for details.

Form CEM-4902, Extra Work Bill (Short Form) (Stock # 7541-3500-8)

Contractors use Form CEM-4902, "Extra Work Bill (Short Form)," for billing extra work. Details for use are on the back of the form and are also included in Section 5-103E, "Extra Work Billing," of this manual. The resident engineer may approve contractor-designed forms. With prior approval from the Division of Construction, the contractor may submit extra work bill data on a computer report identical to Form CEM-4902 for all Caltrans projects.

Form CEM 4902A, Extra Work Bill - Title Page (Stock # 7541-3496-7)

Contractors use Form CEM 4902A, "Extra Work Bill - Title Page," for billing extra work. It is the first page of the 4-part extra work bill. It identifies the project, contract change order number, method of payment and performer of work. This form also provides for manual calculation of the bill. Details for use are on the back of the form and are also included in Section 5-103E, "Extra Work Billing," of this manual. The resident engineer may approve contractor-designed forms. With prior approval from the Division of Construction, the contractor may submit extra work bill data on a computer report identical to Form CEM-4902A for all Caltrans projects.

Form CEM-4902B, Extra Work Bill - Labor Charges (Stock # 7541-3497-9)

Contractors use Form CEM-4902B, "Extra Work Bill - Labor Charges," for billing extra work. It is used to enter labor charges and other expense subject to labor markup. This form is used with CEM-4902A, "Extra Work Bill Title Page." Details for use are on the back of the form and are also included in Section 5-

103E, “Extra Work Billing,” of this manual. The resident engineer may approve contractor-designed forms. With prior approval from the Division of Construction, the contractor may submit extra work bill data on a computer report identical to Form CEM-4902B for all Caltrans projects.

Form CEM-4902C, Extra Work Bill - Equipment Charges (Stock # 7541-3498-1)

Contractors use Form CEM-4902C, “Extra Work Bill - Equipment Charges,” for billing extra work. It is used to enter equipment charges to the extra work bill. This form is used with CEM-4902A, “Extra Work Bill - Title Page.” Details for use are on the back of the form and are also included in Section 5-103E, “Extra Work Billing,” of this manual. The resident engineer may approve contractor-designed forms. With prior approval from the Division of Construction, the contractor may submit extra work bill data on a computer report identical to Form CEM-4902C for all Caltrans projects.

Form CEM-4902D, Extra Work Bill - Material Charges (Stock # 7541-3499-3)

Contractors use Form CEM-4902D, “Extra Work Bill - Material Charges,” for billing extra work. It is used to enter material charges to the extra work bill. This form is used with CEM-4902A, “Extra Work Bill - Title Page.” Details for use are on the back of the form and are also included in Section 5-103E, “Extra Work Billing,” of this manual. The resident engineer may approve contractor-designed forms. With prior approval from the Division of Construction, the contractor may submit extra work bill data on a computer report identical to Form CEM-4902D for all Caltrans projects.

Form CEM-4903, Contract Change Order Memorandum (Stock # 7541-3544-0)

Resident engineers use Form CEM-4903, “Contract Change Order Memorandum” in conjunction with Form CEM-4900, “Contract Change Order,” to report the necessary engineering and administrative data relative to the change. See Section 5-3, “Contract Change Orders,” of this manual for details.

Form CEM-5101, Request for Payment for Materials on Hand
(Stock # 7541-3522-4)

Contractors use Form CEM-5101, “Request for Payment for Materials on Hand,” to request payment for materials on hand. Instructions for the form and administrative procedures are covered in Section 3-9, “Measurement and Payment,” of this manual.

Form CEM-6001, Project Record - Estimate Request

The resident engineer uses Form CEM-6001, “Project Record - Estimate Request,” to request that an estimate be run. See Section 5-103F (1), “Procedure,” of this manual for details.

Form CEM-6002, Contract Administration System (CAS) - Report Requests

Use Form CEM-6002, “Contract Administration System (CAS) - Report Requests,” to obtain reports available from the contract administration system. See Section 5-103, “The Contract Administration System (CAS),” of this manual for details.

Form CEM-6003, Progress Pay - Estimate Project Initiation or Update

Use Form CEM-6003, “Progress Pay - Estimate Project Initiation or Update,” to add new information or to change information in the contract administration system. For details see Section 5-103B, “Project Initiation and Update,” of this manual.

Form CEM-6004, Contract Transactions Input (Stock # 7541-3515-0)

Use Form CEM-6004, “Contract Transactions Input,” to input estimate data into the contract administration system for the project record and estimate. See Section 5-103C, “Contract Transactions,” of this manual for details.

Form CEM-6201, Notice of Potential Claim

Contractors use Form CEM-6201, “Notice of Potential Claim,” to submit notices of potential claims to the resident engineer. For details on the use of this form see Section 5-4, “Disputes,” of this manual.

Form CEM-6201A, Initial Notice of Potential Claim

Contractors use Form CEM-6201A, “Initial Notice of Potential Claim,” to submit an early notice of a potential claim issue. For details on the use of this form, see Section 5-4, “Disputes,” of this manual.

Form CEM-6201B, Supplemental Notice of Potential Claim

Contractors use Form CEM-6201B, “Supplemental Notice of Potential Claim,” to submit a detailed description along with the necessary attachments of the nature, circumstances, and estimated costs of a potential claim as a follow up to Form CEM-6201A, “Initial Notice of Potential Claim.”

Form CEM-6201C, Full and Final Documentation of Potential Claim

Contractors use Form CEM-6201C, “Full and Final Documentation of Potential Claim,” to submit a complete documentation of a potential claim after completion of the work for which Forms CEM-6201A and CEM-6201B have been submitted. For details on the use of this form, see Section 5-4, “Disputes,” of this manual.

Form CEM-6202, Disputes Review Board (DRB) Establishment

Resident engineers complete and submit Form CEM-6202, “Disputes Review Board (DRB) Establishment Report,” to the Division of Construction after the initial DRB meeting has been held. For details on the use of this form, see Section 5-4, “Disputes,” of this manual.

Form CEM-6203, Dispute Review Board (DRB) Update Report

Resident engineers complete and submit Form CEM-6203, “Disputes Review Board (DRB) Update Report,” to the Division of Construction yearly beginning on the anniversary of the contract first working day. For details on the use of this form, see Section 5-4, “Disputes,” of this manual.

Form CEM-6204, Dispute Review Board (DRB) Issue Report

Resident engineers complete and submit Form CEM-6204, “Disputes Review Board (DRB) Issue Report,” to the Division of Construction when Caltrans has sent a response to DRB recommendation and the contractor’s response has been received or has been accepted by default. For details on the use of this form see Section 5-4, “Disputes,” of this manual.

Form CEM-6205, Dispute Review Board (DRB) Completion Report

Resident engineers complete and submit Form CEM-6205, “Disputes Review Board (DRB) Completion Report,” to the Division of Construction 30 days after receipt of the contractor’s exceptions to the proposed final estimate. For details on the use of this form see Section 5-4, “Disputes,” of this manual.

Form CEM-6301, Contract Acceptance

Resident engineers use Form CEM-6301, “Contract Acceptance,” to document acceptance and the various quantities delivered by the contract. Instructions are on the back of the form. For details on the use of this form see Section 3-710, “Acceptance of Contract,” of this manual.

Form CEM-9001 Construction Manual Proposed Change

Caltrans personnel may use Form CEM-9001 “Construction Manual Proposed Change,” to submit a proposed change to the *Construction Manual*. Forms should be sent to the Division of Construction.

5-101C Office of Materials Engineering and Testing Services Forms (METS)

Order METS forms by stock number from district warehouses or stockrooms. Find forms without stock numbers on the Caltrans Electronic Form System’s (CEFS) Intranet web site: <http://adsc.caltrans.ca.gov/CEFS/>. The appendix of this manual contains samples the forms that are generated in construction. Forms without stock numbers can also be obtained by contacting METS.

Form TL-0028, Notice of Materials to be Inspected

METS uses Form TL-0028, “Notice of Materials to be Inspected,” to assign inspection duties. METS sends copies of these assignment forms to the resident engineer. Sample form not in appendix.

Form TL-0029, Report of Inspection of Material (Stock # 7541-6001-2)

METS will complete Form TL-0029, “Report of Inspection of Material,” to confirm the inspection of material to which the inspector has attached inspection release tags or other means of identification. METS mails the report to the resident engineer, who will compare it with inspection tags or markings on delivered materials. Sample form not in appendix.

Form TL-0101, Sample Identification Card

Use Form TL-0101, “Sample Identification Card,” to submit samples to METS or district materials laboratories for testing materials other than field samples of concrete (compressive strength) and cement samples.

Form TL-0502, Field Sample of Portland Cement Concrete Sample Card
(Stock #7541-6018-8)

Use Form TL-0502, “Field Sample of Portland Cement Concrete Sample Card,” to submit compressive strength samples of concrete. Refer to Section 6-3, “Field Tests,” for details on marking of samples.

Form MR-0518, Job Cement Samples Record (Stock # 7541-6019-0)

Use Form MR-0518, “Job Cement Samples Record,” to submit cement samples for testing. Instructions for the use of this form are found in Section 6-2, “Acceptance of Manufactured Material and Sampling Methods,” of this manual.

Form TL-0608, Notice of Materials to be Furnished

METS uses Form TL-0608, “Notice of Materials to be Furnished,” to notify the manufacturer that a METS inspector has been assigned to inspect a specific item. See Section 6-2, “Acceptance of Manufactured Material and Sampling Methods,” of this manual for more details. Sample form not in appendix.



Form TL-0624, Inspection Release Tag

When a METS Inspector has inspected material, the inspector will attach Form TL-0624, “Inspection Release Tag,” with lot numbers, inspector’s initials, and date of inspection. For materials where it is not practicable to attach tags, the inspector will mark lot numbers on the material in lieu of attaching the tags. Sample form not in appendix.

Form TL-0649, Inspector’s Report of Material on Hand

METS uses Form TL-0649, “Inspector’s Report of Material on Hand,” to verify that material has been inspected and is in acceptable condition. See Section 3-9, “Measurement and Payment,” of this manual for details. Sample form not in appendix.

Form TL-3096, Pavement Core Record

The district materials unit uses Form TL-3096, “Pavement Core Record,” to record the data on cores that are taken to determine pavement thickness. See Section 4-40, “Portland Cement Concrete Pavement,” of this manual for details. Sample form not in appendix.

Form TL-6037, Fabrication Progress Report

DMETS uses Form TL-6037, “Fabrication Progress Report,” to notify resident engineers of progress being made on fabrication of various items. See Section 3-9, “Measurement and Payment,” for details. Sample form not in appendix.

5-101D Other State Forms

Following is a list of state forms used in contract administration that are not issued by the Division of Construction or METS.

Form DAS-1, Apprentice Agreement

Form DAS-1, “Apprentice Agreement,” provides evidence of registration of the contractor’s apprenticeship program (Sample form not in appendix). Contractors obtain Form DAS-1 from the *California Department of Industrial Relations, Division of Apprenticeship Standards*.

Form H-ESP-16, Request for Construction Staking (Stock #7541-4542-7)

The contractor uses Form H-ESP-16, “Request for Construction Staking,” to request construction staking. The resident engineer and the survey party chief add information to the request. It serves as a record of construction staking and any charges to the contractor for re-staking. For information on construction surveys and use of Form H-ESP-16, see Chapter 12, “Construction Surveys,” of the *Caltrans Surveys Manual*.

Form LA-16, Product, Material, or Method Report (For Highway Planting or Erosion Control)

Use Form LA-16, “Product, Material, or Method Report (For Highway Planting or Erosion Control),” to report new products, materials, or methods for erosion control and highway planting. Send the completed report to the district landscape architect and to the Landscape Architecture Program. See section 4-2001, “General,” of this manual for details.

Form LA-17, Report of Chemical Spray Operations

The contractor uses Form LA-17, “Report of Chemical Spray Operations,” to submit the required weekly pesticide application report. See Section 4-2003C (2), “Pesticides,” of this manual for details.

Form TR-0019, Notice of Change in Clearance or Bridge Weight Rating

Use Form TR-0019, “Notice of Change in Clearance or Bridge Weight Rating,” to report permanent changes to vertical or horizontal clearance for vehicular traffic or permanent changes in bridge permit ratings on divided roadways. See Section 3-705B, “Clearance and Bridge Permit Rating Changes (Permanent),” of this manual for details.

Form TR-0020, Notice of Change in Vertical or Horizontal Clearance

Use Form TR-0020, “Notice of Change in Vertical or Horizontal Clearance,” to report permanent changes to vertical or horizontal clearance for vehicular traffic. See Section 3-705B, “Clearance and Bridge Permit Rating Changes (Permanent),” of this manual for details.

Form TR-0029, Notice of Change in Clearance or Bridge Weight Rating

Use Form TR-0029, “Notice of Change in Clearance or Bridge Weight Rating,” to report permanent changes to vertical or horizontal clearance for vehicular traffic or permanent changes in bridge permit ratings on undivided roadways. See Section 3-705B, “Clearance and Bridge Permit Rating Changes (Permanent),” of this manual for details.

5-101E Federal Forms

Following is a list of some federal forms that are used in contract administration.

Form FHWA-47M Statement of Materials and Labor Used By Contractors On Highway Construction Involving Federal Funds

The contractor must submit Form FHWA-47M “Statement of Materials and Labor Used By Contractors On Highway Construction Involving Federal Funds,” on federal-aid contracts when the amount paid to the contractor is in excess of \$1,000,000. Instructions are on the back of the form. Sample form not in appendix. Obtain the form from the United States Department of Transportation, Federal Highway Administration’s web site: <http://www.fhwa.dot.gov/>

Form FHWA-1022 United States Department of Transportation Notice

The contractor must post Form FHWA-1022 “United States Department of Transportation Notice,” on each federal-aid highway project in one or more places where it is readily available to all personnel associated with the project. The resident engineer must also post the notice at the Caltrans field office. (Sample form not in appendix). Obtain the form from the United States Department of Transportation, Federal Highway Administration’s web site: <http://www.fhwa.dot.gov/>

Form FHWA-1391 Federal-Aid Highway Construction Contractors Annual EEO Report

The contractor must submit Form FHWA-1391 “Federal-Aid Highway Construction Contractors Annual EEO Report,” on all federal aid contracts over \$10,000. All subcontractors on federal aid projects whose subcontracts exceed \$10,000 must also submit the report. Contractors and subcontractors include project employment data for the last full week of July on the report. Sample form not in appendix. Obtain the form from the United States Department of Transportation, Federal Highway Administration’s web site: <http://www.fhwa.dot.gov/>

Form DOL SF-308 Request for Wage Determination and Response to Request

On federal-aid contracts, request wage rate determinations on the United States Department of Labor Form SF-308, “Request For Wage Determination and Response to Request.” Sample form not in appendix. Obtain the form from the United States Department of Transportation, Federal Highway Administration’s web site:
<http://www.fhwa.dot.gov/>

Equal Employment Opportunity Is The Law Poster

The contractor must post the “Equal Employment Opportunity Is The Law Poster” on each federal-aid highway project in one or more places where it is readily available to all personnel associated with the project. The resident engineer must also display the poster at the Caltrans field office. Sample form not in appendix. Obtain the poster from the United States Department of Transportation, Federal Highway Administration’s web site or the district labor compliance officer:
<http://www.fhwa.dot.gov/>

Form FHWA-1495 Wage Rate Information Federal-Aid Highway Project

The contractor must post Form FHWA-1495 “Wage Rate Information Federal-Aid Highway Project,” with the Secretary of Labor minimum wage rate schedule attached, at the jobsite where the workers can easily see it. Sample form not in appendix. Obtain the form from the Federal Highway Administration or the district labor compliance officer: <http://www.fhwa.dot.gov/>

5-102 Organization of Project Documents

5-102A General

This section describes the uniform filing system for organizing project records and reports. The system uses numbered categories for filing project documents. Use the uniform filing system on all projects.

There are 63 categories in the filing system. There are several unassigned categories. Use them for project documents that do not fit in assigned categories. If necessary, divide a category into subcategories.

Assign the appropriate category numbers to documents filed at a separate location (such as a field office hanging file). The filing system will then be correct when records are brought together after project completion.

Obtain preprinted category labels, stock number 7690-0150-6, from the district warehouse.

5-102B Indexing

Use a category index, similar to the sample shown at the end of this section, or an index of categories that is supplied with the labels, for each project. Post the index in a prominent location.

When the location of a category is separate from the main file, indicate its location on the index under appropriate heading.

5-102

Organization of Project Documents

5-102C Description of Categories

The discussion below describes the documents that should be included in each category and, for some categories, a recommended order of the documents in the categories.

Category 1, Project Personnel

Include all personnel related records in this category. Suggested subcategories are listed below. On smaller projects, some of the listed subcategories may be combined when the amount of detail shown is not warranted.

- Form CEM-0101, “Resident Engineer’s Report of Assignment”
- Attendance Report
- Overtime Records
- Monthly Time Sheets
- Overtime Requests and Authorizations
- Absence Requests
- Personnel Transfer Records
- Personnel Roster
- Travel Expense Claims and Records
- Individual Personnel File. Use this for a file on each individual containing emergency telephone numbers, experience or training records, among other things.

Category 2, Project Office Equipment and Supplies

In this category, file those documents relating to equipment and supplies. Include records of equipment and supplies that have been received or returned. The subcategories listed below outline the scope of this category.

- Equipment Inventory
- Shipping Records (related shipping and receiving records should be stapled together)
- Receiving Records
- Transfer Requests
- Local Requests
- Automotive Records
- Cash Expenditure Vouchers
- Purchase Orders
- Bills of Lading

Category 3, Equipment and Personnel Cost Reports

In this category, file construction engineering cost reports.

Category 4, Service Contracts

In this category, file those documents related to the project office utilities and services. File requests for service along with all correspondence relating to project office service contracts in an appropriate subcategory. File the receiving records for bills for utilities and services in a “date received” sequence.

It is recommended that a separate subcategory be used for each company or each service agreement. File purchase orders for supplies in Category 2, “Project Office Equipment and Supplies.”

The subcategories that may be included in this category are as follows:

- Rent
- Electricity
- Gas
- Telephone
- Water
- Additional service agreements, as required

Do not confuse this category with Category 16, “Utility Agreements,” Category 17, “Utility Work Performed,” or a subcategory of Category 52, “Charges to Contract Allotment.” These are part of the project’s construction operations. Category 4 includes only those transactions connected with the resident engineer’s office.

Category 5, General Correspondence

In this category, file those letters that do not relate to any other category or subcategory in use. File correspondence concerning a subject that directly relates to some other category in that category. For example file correspondence developed in connection with a contract change order in the contract change order category file.

File correspondence filed in any subcategory in chronological order.

When the volume of correspondence builds up, segregate and divide it into more detailed subject subcategories. When appropriate, transfer correspondence from category 5 to a more specific category. For example, a property owner may object to certain conditions on the project. After considerable correspondence, The resident engineer writes a contract change order to solve the problem. At this point, the resident engineer should transfer all of the correspondence related to the contract change order to the contract change order category file.

A letter might cover subjects in different categories. When the letter relates directly to two subjects, file a copy in each category or cross-reference to the location of the original. Cross-referencing need be only a note describing the letter filed in the appropriate category.

The following are examples of the subcategories in category 5. The number of subcategories will depend on the volume of correspondence. Show all subcategories in the index.

- To district office
- From district office
- To contractor

- From contractor
- Property owners
- Utility companies
- Any additional subcategories that may be required depending on the volume of the correspondence.

Category 6, Safety

File project documents relating directly to safety in this category. Suggested subcategories are shown below:

- Employee Safety
- Contract Documents Relating to Safety
- Correspondence with the Division of Occupational Safety and Health (Cal/OSHA)
- A copy of the contractor's Code of Safe Practices in use for the project

Category 7, Public Relations

File the various documents covering the subject of public relations in this category.

Category 8, Construction Surveys

Use this category for filing all survey documents that do not directly or solely relate to another category.

File Form H-ESP-16, "Request for Construction Staking," in this category. Create subcategories for requests on which staking has been completed and for those where staking has not been completed. Cross-file staking requests that include restaking charges in Category 54, "Deductions from Payment to Contractor."

Category 9, Welding

In this category, file documents relative to welding in accordance with instructions in Section 180, "Welding," of the *Bridge Construction Records and Procedures Manual*.

Category 10, Extra Category Number

Use this extra category number for project documents that do not fit in presently established categories. When used, enter the name of the category on the index sheet.

Category 11, Information Furnished at Start of Project

In this category, file documents related to planning, design, contract funding, advertising, and opening bids. Do not file documents in this category that apply solely or directly to other established categories. This category should contain the following items. Create subcategories as necessary due to the volume of documents.

- Project Report
- Preliminary Report
- Project Expenditure Authorization, (including Supplemental Allotments)
- Detailed Estimate of Project Cost

- Notice of Award of Contract
- Bid Summary Sheets
- Federal Detail Estimate
- Executed Contract, Special Provisions, and Plans
- Notice of Approval of the Contract.
- Environmental Permits
- Encroachment Permits and Cooperative Agreements
- Bidder Inquiry Information

Category 12, Contractor

Use this category to file the various documents that the contractor is required to submit. Do not use it for general correspondence or documents appropriate to another specific category. The following subcategories suggest the scope of the category:

- Contractor's organization including the designation of the contractor's authorized representative as required by Section 5-1.06, "Superintendence," of the *Standard Specifications*
- Contractor's equipment list
- Contractor's borrow agreements
- List of subcontractors and other project documents concerning subcontracting
- Shop plans, if not filed under another appropriate category
- Falsework plans
- Insurance documents as required in Section 7-1.12, "Indemnification and Insurance," of the *Standard Specifications*

Category 13, Signs and Striping

In this category, file all documents relayed to signing, delineation, and handling public traffic during construction. Suggested subcategories are listed below.

- Layout of Construction Signs
- Detour Design, Striping and Signing
- Traffic Striping Diagrams

Category 14, Photograph Records

File routine photographs and their identification in this category. File photographs relating to claims in Category 62, "Disputes." It is a good practice to take photographs on a monthly basis to document the work during construction. Maintain videotapes and digital photo files in an organized manner. Note the location of these items in this category file.

Suggested subcategories for this category are:

- Before Construction
- During Construction
- After Construction

Category 15, Accidents

In this category, file documents related to accidents. Subcategories may include:

- Caltrans Employee Accident and Injury Reports.
- Caltrans Vehicle Accident Reports.
- California Highway Patrol Accident Reports.
- Local Police Accident Reports.
- Records and Investigations of Public Traffic Accidents.
- Records and Investigations of Contractor Accidents.

Category 16, Utility Agreements

In this category, file those documents that relate to work to be done to utility facilities in connection with the project.

Create subcategories for the various utility companies. Set up second level subcategories when required by the number of documents. The following are examples of subcategories within this category:

- 16.1.1 PG&E Co.—Agreements
- 16.1.2 PG&E Co.—Relocations
- 16.1.3 PG&E Co.—Encroachment Permit
- 16.2 AT&T Co.
- 16.3 Southern Pacific RR Co.

Category 17, Utility Work Performed

In this category, file daily reports and other records of utility facility work. Create the same the primary subcategories as those used in Category 16.

Create second level subcategories when required by the number of documents and the amount of work. For example, where the work would develop just daily reports and receiving records of one utility relocation, these documents could be kept in one subcategory in chronological order. When the same utility company has more than one relocation a more detailed breakdown may be advisable.

Category 18, Agreements

In this category, file agreements (except utility agreements) with third parties or other state or county agencies. The number and levels of subcategories will depend upon the agreements and the nature and extent of the work involved. A list of suggested subcategories follows:

- Right-of-Way Agreements—Without Obligations
- Right-of-Way Agreement—With Obligations
- Forest Service Agreements
- Borrow Agreements (between Caltrans and owner)
- Disposal Agreements (between Caltrans and owner)
- Service Agreements (these are utility service agreements such as for highway lighting)

- Disposal Permits
- Records of Royalty Payments
- Encroachment Permits

File an encroachment permit relating to a utility facility agreement under Category 16, “Utility Agreements.” File an encroachment permit relating to a right-of-way agreement in this category.

Where there are several right-of-way agreements requiring some degree of control, such as right-of-way agreements with obligations, maintain a summary to show the status of these agreements. An example of the status summary headings is shown below:

- The agreement number.
- The location of work to be performed.
- A brief description of work to be done and by whom.
- When the work is completed.
- The contract change order number if the required work is being done by contract change order.

Category 19, Hazardous Waste and Hazardous Materials

File any information regarding the discovery and removal of hazardous waste in this category.

Category 20, Water Pollution Control Plan or Storm Water Pollution Prevention Plan

File all correspondence regarding water pollution control plans (WPCP) or storm water pollution prevention plans (SWPPP) in this category. A list of suggested subcategories follows:

- Approved WPCP or SWPPP
- Amendments to WPCP or SWPPP
- Notification of Construction
- Correspondence
- Inspections by Contractor
- Inspections by Caltrans
- Inspections by Task Force Team
- Notices of Noncompliance
- Annual Certification of Compliance
- Notice of Termination

Category 21, Construction Zone Enhanced Enforcement Program

File documents relating directly to the Construction Zone Enhanced Enforcement Program (COZEEP) in this category. Suggested subcategories are shown below:

- Form CEM-2103, “COZEEP/MAZEEP Cancellation Form.”
- Form CEM-2102, “COZEEP/MAZEEP Task Order.”
- Form CEM-2101, “COZEEP Daily Report.”

Category 22, Traffic Management Information

Use this category to file information related to traffic management. Possible subcategories include:

- Contractor lane closure requests
- Lane closure requests submitted to the traffic management center
- Approved lane closures
- Contractor contingency plans
- Traffic count data

Category 23, Extra Category Number

Use this extra category number for project documents that do not fit in presently established categories. When using an extra category, enter the category number and title in the index.

Category 24, Disadvantaged Business Enterprises and Disabled Veteran Business Enterprises

Use this category for the following:

- Disadvantaged business enterprises (DBE) and disabled veteran business enterprises (DVBE) correspondence.
- The contractor’s DBE/DVBE utilization plan.
- DBE and DVBE substitution requests and approvals.
- DBE and DVBE monthly reports.
- Certified rosters.
- Form CEM-2402(S), “Final Report-Utilization of Disabled Veterans Business Enterprises (DVBE).”
- Form CEM-2402(F) “Final Report-Utilization of Disadvantaged Business Enterprises (DBE), First-Tier Subcontractors.”
- Other DBE and DVBE related documents.

Category 25, Labor Compliance and Equal Employment Opportunity

In this category, file required labor compliance and equal employment opportunity information. See Sections 8-1, “Labor Compliance,” and 8-2, “Equal Employment Opportunity,” of this manual for details.

Category 26, Progress Schedule

In this category, file the progress schedule, critical path method submittals, and other related information.

Category 27, Weekly Statement of Working Days

In this category, file Form CEM-2701, “Weekly Statement of Working Days.” Also file correspondence relating to contract time in a subcategory of this category.

Category 28, Weekly Newsletter

In this category, file periodic newsletters and reports that are prepared during the project. Include those weekly reports of a general nature pertaining to the progress of the contract.

Category 29, Materials Information and Preliminary Tests

In this category, file materials information and preliminary test reports. Suggested subcategories follow:

- Materials information
- Report of foundation investigation
- Asphalt concrete aggregate (preliminary tests)
- Report of tests on aggregate base (preliminary tests)
- Report of tests on aggregate subbase (preliminary tests)

Category 30, Basement Soil Test Results

In this category, file basement soil test results taken to determine structural section adequacy (taken during design phase).

Category 31, Notice of Materials to Be Used

In this category, file Form CEM-3101, “Notice of Materials to Be Used.” Create a system for checking that notices have been received.

Make Form CEM-3101’s that contain information for structure items available for use by the structure representative. Consider filing the Form CEM-3101’s listing structure items in a separate subcategory of this category.

Category 32, Notice of Materials to be Inspected

In this category, file Form TL-0028, “Notice of Materials to be Inspected.”

Category 33, Notice of Materials to be Furnished

In this category, file Form TL-0608, “Notice of Materials to be Furnished.”

Category 34, Treated Base

In this category, file documents for cement-treated base, cement-treated permeable base, and asphalt-treated permeable base. Do not include those documents that are to be filed in other specific categories such as 37 and 48.

Use subcategories similar to the examples shown below. Create a numbering system that identifies the category, item and subcategory. For example, 34.26.3 indicates Category 34 “Treated Bases,” 26 is the contract item number of the material and also identifies the subcategory, and the 3 is the second level subcategory identifying the particular document.

- 34.26.1 Mix design data, cement-treated base
- 34.26.2 Plant records, cement-treated base
- 34.26.3 Spread records, cement-treated base
- 34.27.1 Mix design data, cement-treated permeable base
- 34.27.2 Plant records, cement-treated permeable base
- 34.27.3 Spread records, cement-treated permeable base
- 34.28.1 Mix design data, asphalt-treated permeable base
- 34.28.2 Plant records, asphalt-treated permeable base
- 34.28.3 Spread records, asphalt-treated permeable base
- 34.4 Certificates of Compliance for materials used in treated bases

Category 35, Asphalt Concrete

In this category, file documents related to asphalt concrete, except those to be filed in other specific categories such as in 37 and 48. Following are suggested subcategories:

- Mix designs and related project documents
- Plant records (other than acceptance tests)
- Spread records
- Certificates of Compliance for materials used in asphalt concrete

Category 36, Portland Cement Concrete (other than structure items)

In this category, file documents related to portland cement concrete. Do not include documents that are to be filed in other specific categories such as 37, 43 and 48. For structure items, the project documents are to be filed in Category 43. See the *Bridge Construction Records and Procedures Manual* for details. Following are suggested subcategories for this category:

- 36.1 Portland cement concrete Pavement
 - 36.1.1 Mix Designs
 - 36.1.2 Plant Records
 - 36.1.3 Certificates of Compliance for materials used in concrete pavement
- 36.2 Portland cement concrete, Class A Structure and minor concrete

- 36.2.1 Mix Designs
- 36.2.2 Plant Records
- 36.2.3 Certificates of Compliance for materials used in Class A structure concrete and minor concrete

Category 37, Initial Tests and Acceptance Tests

In this category, file initial tests and acceptance tests. File documents in each subcategory chronologically unless there is a specific reason for doing otherwise.

Use subcategories similar to the examples shown below. Create a numbering system that identifies the category, item and subcategory. For example, 37.21.3 indicates Category 37 “Acceptance Tests,” 21 is the contract item number of the material and also identifies the subcategory, and the 3 is the second level subcategory identifying the particular test result.

- Embankment
 - 37.10.1 Relative Compaction
- Structure Backfill
 - 37.14.1 Sand Equivalent
 - 37.14.2 Relative Compaction
- Aggregate Subbase
 - 37.21.1 Relative Compaction
 - 37.21.2 Moisture
 - 37.21.3 Sieve Analysis
 - 37.21.4 Sand Equivalent
 - 37.21.5 Record of Thickness (summarized in the order that the measurements are made)
- Aggregate Base
 - 37.22.1 Relative Compaction
 - 37.22.2 Moisture
 - 37.22.3 Sieve Analysis
 - 37.22.4 Sand Equivalent
 - 37.22.5 Record of Thickness (summarized in the order that the measurements are made)
- Asphalt Concrete
 - 37.31.1 Gradings and sand equivalent (file both in a single subcategory when both results appear on one test report)
 - 37.31.2 Extraction and Moisture
- Portland Cement Concrete Pavement
 - 37.42.1 Sand Equivalent

- 37.42.2 Cleanness Value
- 37.42.3 Sieve Analysis
- 37.42.4 Modulus of Rupture
- 37.42.5 Penetration Values
- 37.42.6 Cement Content
- 37.42.7 Profilograph Summary
- 37.42.8 Coefficient of Friction
- 37.42.9 Other related items

Use Form CEM-3701, “Test Result Summary” for each item of testing, and file it in the appropriate subcategory of this category.

Bills of lading and copies of sample identification tags may be filed in this category temporarily and discarded when their respective test reports are filed.

File test results for items assigned to Office of Structure Construction personnel in this category in accordance with instructions contained in the *Bridge Construction Records and Procedures Manual*.

Category 38, Quality Control, Quality Assurance

In this category, include all documents relating to quality control, quality assurance. Create a subcategory system to include the following:

- The contractor’s quality control plan
- Mix designs
- The contractor’s quality control tests
- Caltrans verification tests
- Pay factor calculations
- Copies of related correspondence

Category 39, Materials Testing Certification of Employees

In this category, file copies of certifications of the employees performing acceptance tests.

Category 40, Field Laboratory Assistant Reports to Resident Engineer

In this category, file chronologically any reports made out by the project’s materials tester. For more than one type of report, such as a report and a summary form, provide separate subcategories.

Category 41, Report of Inspection of Material

In this category, file Form TL-0029, “Report of Inspection of Material.” Create a subcategory for each contract item requiring inspection at the source by a Office of Materials Engineering and Testing Services inspector.

Place a summary sheet containing the date of inspection, quantity inspected, accumulated quantity, and lot numbers in each subcategory. Use form similar to that used by the Office of Structure Construction (Form DH-OS-C52, “Materials Release Summary”). The primary purpose of this form is to check that materials used in the work have been inspected.

Staple Form TL-0624, “Inspection Release Tag,” removed from materials received on the project, to the report of inspection on a letter-size sheet of paper and file it in the appropriate subcategory of this category. The sheet should contain the name of the engineer who removed it and the date removed. When lot numbers are marked on the items, note the observed lot number on the related Form TL-0029.

When the Form TL-0029 includes material for more than one item, include a reference on the summary sheet showing the file location of the TL-0029.

File test reports (usually on Form CEM-4102, “Material Inspected and Released on Job”) that cover material sampled on the job in lieu of source inspection in the appropriate subcategory of this category, not in Category 37.

File reports of inspection or certificates of compliance for materials assigned to the structure representative in this category in accordance with instructions contained in *Bridge Construction Records and Procedures Manual*.

Category 42, Material Plants

In this category, file Form CEM-4202, “Material Plant Safety Checklist” and all other project documents pertaining to material plant inspections.

Category 43, Concrete and Reinforcing Steel

In this category, file documents relative to concrete and reinforcing steel in accordance with instructions in the *Bridge Construction Records and Procedures Manual*.

Category 44, Extra Category Number

Use this extra category number for project documents that do not fit in presently established categories. When using an extra category, enter the category number and title in the index.

Category 45, Resident Engineer’s Daily Reports

In this category, file Form CEM-4501, “Resident Engineer’s Daily Report/Assistant Resident Engineer’s Report” and the structure representative’s daily report.

Category 46, Assistant Resident Engineer's Daily Reports

In this category, file Form CEM-4601, "Assistant Resident Engineer's Daily Report."

Subcategories may be used. They may vary depending on the complexity of the project and the desires of the district. The resident engineer and the structure representative must agree on the subcategories before the start of work. Follow the procedures described below to establish the subcategories.

1. Reports Covering Contract Items

Create a subcategory for each major operation so that all items affecting the major operations are grouped together. An example of a system for a relatively large project follows:

| Category and Subcategory Number | Operations | Contract items Involved in the Operation |
|---------------------------------|--|--|
| 46.2 | Clearing and Grubbing | 5 |
| 46.3 | Rdwy. Exc., Ditch Exc. Aggregate Subbase | 8,13,11,15,22 |
| 46.4 | Salvage Fence, New Fence Gates | 2,78,79,80 |
| 46.5 | Guard Railing, Markers, Barricades | 1,4,82,83,87 |
| 46.6 | AB,CTB | 23,24 |
| 46.7 | AC Slurry Seals, Dikes | 28,29,30,31,32 |
| 46.8 | Concrete Paving | 35,36,37 |
| 46.9 | Curbs and Sidewalks, Slope Paving, Curb Drains, Spec. Gutter Drains | 73,74,76,77 |
| 46.10 | Minor Str., Precast MH and DI, Reinf. Steel, Misc. Iron and Steel | 42,69,70,46,75 |
| 46.11 | RCP, CMP, SSP Arch, Drainage Gates, Under/Down Drain, Str Exc., Str. Backfill | 9,11,58 |
| 46.2 | Preparing Slopes, Straw | 16,17,18,19,20 |
| 46.13 | Permanent Signing | 52,53,54,55 |
| 46.14 | Hwy. lighting and sign illumination | 88 |
| 46.15 | Finishing Roadway | 21 |
| 46.16 | Structure #1 | 89,90,91 |
| 46.17 | Structure #2 | 89,90,91 |

Modify the above breakdown to conform to the size and nature of the project. Make the breakdown narrow enough so that reports covering any particular contract item may be obtained with ease. Review the breakdown to ensure it includes all contract items.

Make as many daily reports as necessary to cover all contract item work in the appropriate subcategories.

As indicated in the above example, set up a separate subcategory for each structure.

2. Reports Covering Extra Work

Pending receipt of the contractor's billing, file chronologically the original and one copy of Form CEM-4601, "Assistant Resident Engineer's Daily Report," covering extra work in a subcategory of this category. After receiving the extra work bill report and approving payment, record the extra work bill number on both copies of the daily report covering the extra work. Keep one copy of the daily report in this chronological file and use it to detect future billings for the same work. File the second copy with the daily extra work report in Category 49.

Extra work bills for material should show the date the material was supplied or placed and referenced to the invoice so that the particular material may be readily identified. Keep a summary of invoices paid and use it as a check against duplicate payment.

The specific system used for filing resident engineer's and assistant resident engineer's daily reports is optional (except for extra work). However, Category 45 and 46 must be used and the file index must clearly show the specific system being used.

Category 47, Drainage Systems

In order to maintain a record of contract items for drainage systems, use Form CEM-4701, "Drainage System Summary."

Use a Form CEM-4701 for each drainage system shown on the drainage quantity plan sheet. The preliminary work required to set up each system summary includes entering the contract number, the system number, planned station and description of the system, and the preliminary or planned quantities which are entered from the drainage quantity plan sheet.

The assistant resident engineer describes progress on each drainage system in the daily report and enters estimates of work completed on the "Progress Record" portion of the drainage system summary.

Enter the quantity of work completed during an estimate period or near the end of the estimate period for each item in the "Estimate of Work Completed" portion of the drainage system summary. The quantities of work completed may then be entered on the Form CEM-6004, "Contract Transactions Input," and paid on the next estimate. Use the extra column next to the item quantity column to identify the Form CEM-6004 page and line number where the quantity was entered.

After all items for a particular drainage system have been calculated and checked, the final quantities are entered in the row labeled, "Actual Q."

In order to keep track of and reduce the number of drainage system summaries that have to be checked at the end of each estimate period, divide the category into the following subcategories:

- 47.1 Before Work Starts
- 47.2 Staked and Being Worked On
- 47.3 Drainage System Complete, Final Quantities Not Complete
- 47.4 Final Quantities Completed

Example:

47.1 Before Work Starts.

Place the preliminary drainage summaries in this subcategory in numerical order. Each drainage system summary will remain in this subcategory until work starts on that system.

47.2 Staked and Being Worked On.

When a drainage system is staked, transfer the drainage summary sheet from index 47.1, “Before Work Starts,” to index 47.2, “Staked and Being Worked on.” Transfer the individual quantity calculation sheets with the drainage summary.

47.3 Drainage System Complete, Final Quantities not complete

After all work is completed on a particular drainage system, transfer the summary sheet with its calculation sheets to this subcategory. Removing the summary from the preceding index (47.2, Staked and Being Worked On), precludes having to go through completed structure summaries at the end of each estimate period when making entries of work completed. Determination of pay quantities should be made as soon as possible after work on the system is complete.

47.4 Final Quantities Completed

After all quantity calculations for a drainage system are completed and the adjusted quantities entered into the project record, transfer the summary sheet and its calculation sheets to this subcategory.

Since all drainage quantity calculation sheets will remain filed in Category 47, some item-numbered folders in Category 48 may have no documents.

Category 48, Contract Item Quantity Documents

In this category, file source documents supporting contract item quantities. List the subcategories in category 48 by contract item number order. Identify individual calculation sheets for the various contract items in the following manner. A quantity sheet with the number 48-14-2 indicates that it is sheet number 2 covering contract item number 14 and filed in Category 48, “Contract Item Quantity Documents.” Some drainage item quantity documents may be filed in Category 47.

Category 49, Contract Change Orders

In this category, file contract change orders and supporting documents in numerical order.

Subcategories of this category are change order numbers in numerical order. Contained within each subcategory are:

- The Form CEM-4900, “Contract Change Order,” Form CEM-4903, “Contract Change Order Memorandum,” and any accompanying correspondence.
- Form CEM-4901, “Contract Change Order Input.”
- Daily extra work bills and reports matched with assistant resident engineer’s daily reports

Two additional subcategories may be:

- The *Labor Surcharge and Equipment Rental Rates (Cost of Equipment Ownership)* book(s) applicable to the contract.
- Equipment rental rates and memos covering rates not shown in the *Labor Surcharge and Equipment Rental Rates Book*.

Category 50, Adjustment in Compensation Calculations

In this category, file project documents and calculations to support adjustments in compensation.

After a contract change order is written, the supporting project documents may be transferred to the contract change order file or remain in this category. Provide cross references between categories 49 and 50 when the supporting documents and calculations remain in category 50.

List the subcategories under this category by contract item numbers.

Category 51, Materials on Hand

In this category, file Form CEM-5101, “Request For Payment for Materials on Hand”, the related evidence of purchase, and any other project documents supporting material on hand payments.

Category 52, Charges to Total Contract Allotment

In this category, file the documents related to and supporting charges to the contract allotment for materials and services supplied by Caltrans.

Divide the category into the subcategories indicated below:

- State Furnished Material And Expenses.

In this subcategory, file the contractor’s letters requesting delivery of state furnished materials. Also, file the receiving records or other records of material furnished by Caltrans. When state furnished material is received as evidenced by a shipping record and a receiving record, file the related shipping and receiving records together.

- Service Contracts.

In this subcategory file, supporting documents and records of project related services. These are not the service contracts connected with the project office.

Category 53, Credit to Contract

In this category, include a subcategory to keep a record of any salvaged or surplus material. Also set up a subcategory for copies of daily extra work reports which cover repair of damage to state property by third parties (see “Reports of Damage to State Highway Property” in the *Caltrans Safety Manual*).

Credit received for salvaged or surplus material or repair of damage is not applied to the contract allotment and the project is not given credit for any additional money to spend.

Category 54, Deductions From Payment to Contractor

In this category, file documents related to deductions from payments to contractors. Possible subcategories include the following:

- Royalties on material.
- Materials bought for the contractor by Caltrans.
- Laboratory testing done for the contractor (see Section 2.01, “General,” of the *Standard Specifications*).
- Engineering and inspection charged to the contractor (see Section 3-506, “Lines and Grades,” of this manual for restaking charges).
- Costs of damaged or missing state-owned signs.
- Railroad flagging charges.
- Noncompliance with the equal employment opportunity provisions of the contract.
- Liquidated damages (See Section 3-908, “Deductions,” of this manual.
- Any other deductions. (See Section 3-9, “Measurement and Payment” of this manual.)

Categories 55 through 58, Extra Category Numbers

These are extra numbers that may be used for project documents that do not fit in presently established categories. When used, enter them on the index sheets.

Category 59, Bridge Estimate Data

In this category, file the bridge estimate data as covered in the *Bridge Construction Records and Procedures Manual*.

Category 60, Contract Administration System Inputs and Reports

In this category, file the outputs for “Project Record Item Sheets.” Subcategories of this category are estimate numbers in numerical order. The subcategories contain documents resulting from the computerized contract administration system (CAS). These CAS reports are cumulative. Only the most current results need to be retained. Possible subcategories are:

- Project Record Item Sheets
- Form CEM-6003, “Progress Pay - Estimate Project Initiation or Update”
- Estimate Verification Form.
- Form CEM-6001, “Project Record - Estimate Request”
- Form CEM-6004, “Contract Transactions Input”

- Status of Contract Items
- Status of Contract Change Orders
- Contract Change Order Master Listing
- Daily Extra Work Report Edit Messages
- Form CEM-6002, “Contract Administration System (CAS) - Report Requests”

If desired, some of the above project documents (other than the “Project Record Item Sheets”) may be filed in extra category numbers.

Category 61, Estimate and Project Status

In this category, file monthly Project Record - Estimate Request documents.

The suggested subcategories of this category are:

- Progress Payment Voucher
- Project Record-Estimate and Project Status
- Estimate Processing Results

Category 62, Disputes

In this category, file notes, photographs, information, and other project documents that may be necessary to establish facts with respect to a dispute. Include any documents that may be related to a dispute in this category or briefly describe and cross-reference them.

Number notices of potential claims in chronological order. These numbers may then be used for subcategories.

The scope of this category may vary considerably, depending upon the nature and circumstances of the dispute. The following types of documents indicate the type of information that should be included:

- Form CEM-6201, “Notice of Potential Claim”
- Acknowledgment of the contractor’s dispute
- Disputes Review Board Agreement
- Contractor’s claim for a time extension (cross-reference to Category 27)
- Acknowledgment of the contractor’s claim for time extension
- Other correspondence relating to disputes
- Photographs pertaining to disputes

Category 63, Project Completion Documents

In this category, file documents related to the completion of the project. The following are suggested subcategories:

- Form CEM-6301, “Contract Acceptance”
- Form FHWA-47M, “Statement of Materials and Labor Used by Contractors On Highway Construction Involving Federal Funds”
- Materials certification
- Punchlist

5-102D Category Numbers And Headings

| Category No. | Heading |
|-----------------|---|
| 1 | Project Personnel |
| 2 | Project Office Equipment and Supplies |
| 3 | Equipment and Personnel Cost Reports |
| 4 | Service Contracts |
| 5 | General Correspondence |
| 6 | Safety |
| 7 | Public Relations |
| 8 | Construction Surveys |
| 9 | Welding |
| 10 | (Extra category number) |
| 11 | Information Furnished at Start of Project |
| 12 | Contractor |
| 13 | Signs and Striping |
| 14 | Photograph Records |
| 15 | Accidents |
| 16 | Utility Agreements |
| 17 | Utility Work Performed |
| 18 | Agreements |
| 19 | Hazardous Waste and Hazardous Materials |
| 20 | Water Pollution Control Plan or Storm Water Pollution Prevention Plan |
| 21 | Construction Zone Enhanced Enforcement Program |
| 22 | Traffic Management Information |
| 23 | (Extra Category Number) |
| 24 | Disadvantaged Business Enterprises and Disabled Veteran Business Enterprises |
| 25 | Labor Compliance and Equal Employment Opportunity |
| 26 | Progress Schedule |
| 27 | Weekly Statement of Working Days |
| 28 | Weekly Newsletter |
| 29 | Materials Information and Preliminary Tests |
| 30 | Basement Soil Test Results |
| 31 | Notice of Materials to Be Used (CEM-3101) |
| 32 | Notice of Materials to be Inspected (TL-0028) |

| | |
|-------|---|
| 33 | Notice of Materials to be Furnished (TL-0608) |
| 34 | Treated Base |
| 35 | Asphalt Concrete |
| 36 | Portland Cement Concrete (other than structure items) |
| 37 | Initial Tests and Acceptance Tests |
| 38 | Quality Control Quality Assurance |
| 39 | Materials Testing Certification of Employees |
| 40 | Field Laboratory Assistant Reports to Resident Engineer |
| 41 | Report of Inspection of Material |
| 42 | Material Plants |
| 43 | Concrete and Reinforcing Steel |
| 44 | (Extra category number) |
| 45 | Resident Engineer's Daily Reports |
| 46 | Assistant Resident Engineer's Daily Reports |
| 47 | Drainage Systems |
| 48 | Contract Item Quantity Documents |
| 49 | Contract Change Orders |
| 50 | Adjustment in Compensation Calculations |
| 51 | Materials on Hand |
| 52 | Charges to Total Contract Allotment |
| 53 | Credit to Contract |
| 54 | Deductions from Payment to Contractor |
| 55-58 | (Extra category numbers) |
| 59 | Bridge Estimate Data |
| 60 | Contract Administration System Inputs and Reports |
| 61 | Estimate and Project Status |
| 62 | Disputes |
| 63 | Project Completion Documents |

5-102E Alphabetical Listing Of Categories

| Heading | Category No. |
|--|------------------------|
| Accidents | 15 |
| Adjustment of Compensation Calculations | 50 |
| Agreements | 18 |
| Asphalt Concrete | 35 |
| Assistant Resident Engineer's Daily Reports | 46 |
| Basement Soil Test Results | 30 |
| Bridge Estimate Data | 59 |
| Treated Base | 34 |
| Charges to Total Contract Allotment | 52 |
| Concrete and Reinforcing Steel | 43 |
| Construction Surveys | 8 |
| Construction Zone Enhanced Enforcement Program | 21 |
| Contract Administration System Inputs and Reports | 60 |
| Contract Change Orders | 49 |
| Contract Item Quantity Documents | 48 |
| Contractor | 12 |
| Credit to Contract | 53 |
| Daily Reports, Assistant Resident Engineer's | 46 |
| Daily Reports, Resident Engineer's | 45 |
| Deductions from Payment to Contractor | 54 |
| Disadvantaged Business Enterprises and Disabled Veterans Business Enterprises | 24 |
| Disputes | 62 |
| Drainage Systems | 47 |
| Estimate and Project Status | 61 |
| Equipment and Personnel Cost Reports | 3 |
| Extra Categories | 10, 23, 38, 56, 57, 58 |
| Field Laboratory Assistant Reports to Resident Engineer | 40 |
| General Correspondence | 5 |
| Hazardous Waste and Hazardous Materials | 19 |
| Information Furnished at Start of Project | 11 |
| Initial Tests and Acceptance Tests | 37 |
| Labor Compliance and Equal Employment Opportunity | 25 |
| Materials on Hand | 51 |



| | |
|--|----|
| Material Plants | 42 |
| Materials Information and Preliminary Tests | 29 |
| Materials Testing Certification of Employees | 39 |
| Notice of Materials to be Furnished (Form TL-0608) | 33 |
| Notice of Materials to be Inspected (Form TL-0028) | 32 |
| Notice of Materials to Be Used (Form CEM-3101) | 31 |
| Photograph Records | 14 |
| Portland Cement Concrete (other than structure items) | 36 |
| Progress Schedule | 26 |
| Project Completion Documents | 63 |
| Project Office Equipment and Supplies | 2 |
| Project Personnel | 1 |
| Public Relations | 7 |
| Quality Control Quality Assurance | 38 |
| Report of Inspection of Material (TL-0029) | 41 |
| Resident Engineer's Daily Reports | 45 |
| Safety | 6 |
| Service Contracts | 4 |
| Signs and Striping | 13 |
| Traffic Management Information | 22 |
| Utility Agreements | 16 |
| Utility Work Performed | 17 |
| Water Pollution Control Plan or Storm Water Pollution Prevention Plan | 20 |
| Weekly Newsletter | 28 |
| Weekly Statement of Working Days (Form CEM-2701) | 27 |
| Welding | 9 |

**5-103
The Contract
Administration
System (CAS)**

5-103 The Contract Administration System (CAS)

5-103A General

This section describes the Contract Administration System (CAS), sometimes referred to as “the progress pay system.” The primary purpose of this computer system is to help administer Caltrans construction projects. Various functional units within construction update and maintain records on individual contracts in CAS from the award and approval of the contract through to the completion and final payment.

CAS is one of three subsystems of the Project Information System and Analysis (PISA). The three subsystems of PISA make up the primary computer system that Caltrans uses for tracking contract capital costs. These subsystems are: planning and design, bidding and award, and project construction. In essentially a straight line, each module of PISA passes data to the next module as a project progresses from conception to completion. See Table 5-1, “Contract Administration System, Systems Interface,” for a general overview of how CAS relates to the other components of the Caltrans computer system used for tracking and paying contract capital costs.

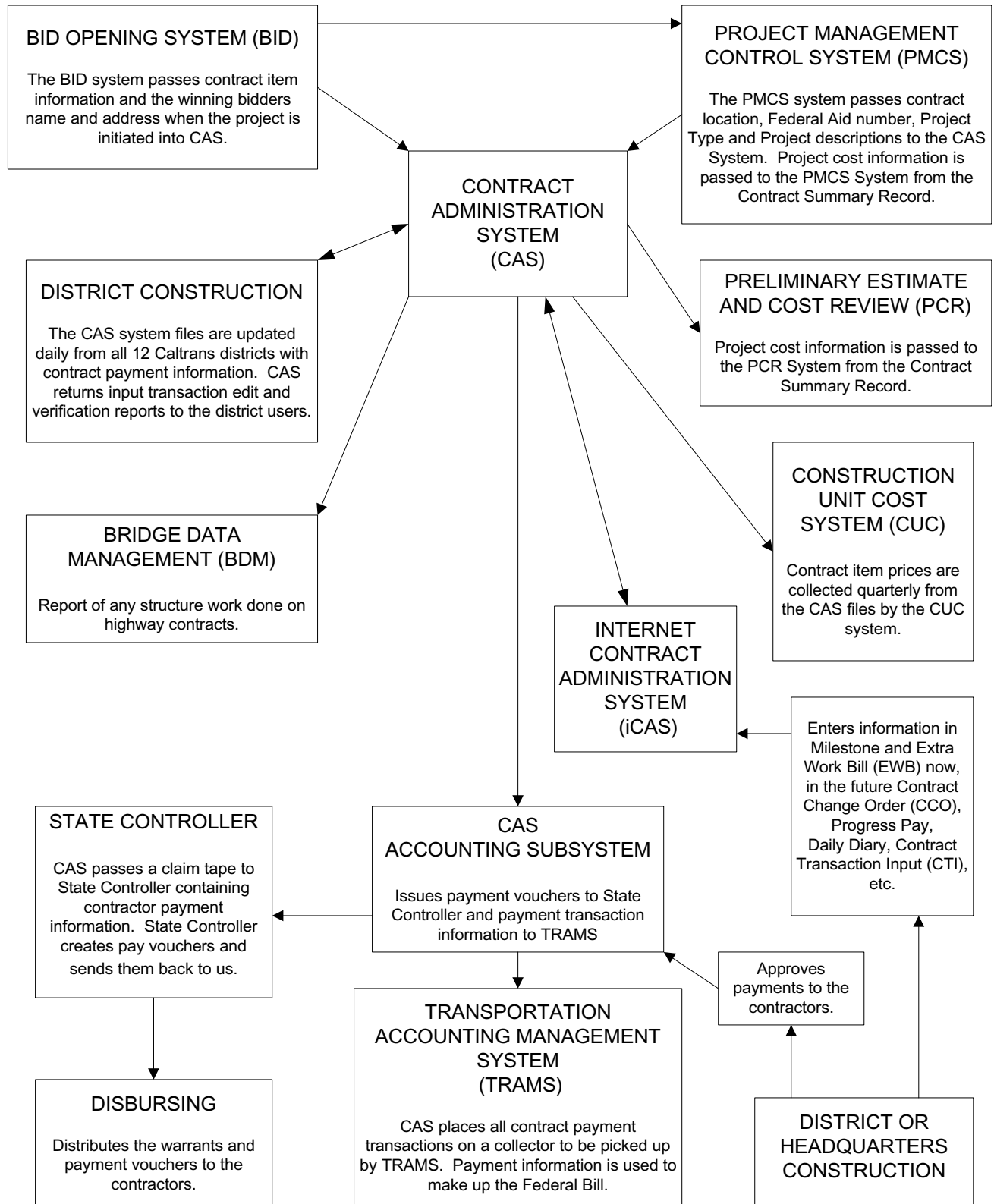
CAS is also composed of separate modules, each of which accomplishes a distinct function. The following are the most common of CAS’s many modules:

- Project initiation and update
- Contract transactions
- Contract change order
- Daily extra work report
- Project record estimate
- Reports
- Online update and inquiry

Resident engineers use these modules to do the following:

- Account for quantities from source documents
- Account for change orders and payments for extra work
- Determine the status of the projects’ financing
- Authorize payments to contractors

Table 5-1.1 Contract Administration System, Systems Interface



5-103B Project Initiation and Update

When Caltrans has determined the lowest responsible bidder, the Office of Office Engineer will transfer project data from the Bid Opening System to CAS. Usually, this data transfer will occur before awarding the contract and before determining the total allotment. When this information about the award and total allotment becomes available, the Division of Construction will then update the computer file (by adding to or changing existing information).

Immediately after the new contract information in the computer file has been transferred from the Bid Opening System, the data is available to the district for processing. The district must then update the file with district information such as the resident engineer's name and address, the bridge representative's name, and the project's password. To perform the update, the district uses Form CEM-6003, "Project Pay—Estimate Project Initiation or Update" which is explained in more detail under the heading "Filling Out Form CEM-6003," below.

The result of the district's file update will be a dummy Form CEM-6001, "Project Record-Estimate Request," and a contract contents report, which lists contract items. The form and report should be checked thoroughly and any discrepancies brought immediately to the attention of the Division of Construction progress pay coordinator.

During a contract's life, the contractor may request a local address change or a legal name style address change. The district must maintain the accuracy of local address information in CAS using Form CEM-6003, "Project Pay-Estimate Project Initiation or Update." The State Controller mails progress payment checks to the legal name style address. Only the Division of Construction's progress pay coordinator is authorized to make changes to the legal name style address from Form CEM-1202, "Contractor Action Request - Change of Name/Address-Assignment of Contract Monies," verified by the resident engineer with the Division of Construction field coordinators concurrence.

5-103B (1) Completing Form CEM-6003, "Project Pay-Estimate Project Initiation or Update"

The purpose of Form CEM-6003 is to add new information, or to change information, in the computer file. The computer program will accept such changes only for contracts in your own district.

Except for the "Project Key," complete only the data fields that you wish to update. The computer program will ignore blank fields and will place the data from the completed fields in the file whether or not such information is already on file. Fields left blank on the input form do not change what is in the file.

Ensure the data you enter on the form conforms to these rules, listed by data field as follows:

5-103B (1a) Project Key

Enter the letter "U" under "FB," and in the remaining spaces, enter the district and contract number.

5-103B (1b) Card type C05 (each field is independent and can be updated separately)

For the following data fields under card type C05, do the following:

- Resident engineer's phone number.
- Responsible unit: The responsible unit may range from 501 to 545. Warning: Until this number is in the computer file, progress pay estimates cannot be processed.



- Date work started: Enter the date the contractor began work on the job site. If work has not begun, leave this field blank and submit an update when work begins.
- Estimated date for completion: Enter your best estimate, not the calculated completion date. When progress estimate requests are submitted, this date is updated.
- Password: Use of this feature is optional. Enter any combination of six characters. The characters may be alphabetic, numeric, or one of the following special characters: *, /, =, (,), +, -, @, #, %, &. Once established, this password is required when you file, among other things, contract item payments, using Form CEM-6004, "Contract Transactions Input." The password will restrict access to the computer files.
- Suspension or reactivation: If a contract is suspended, enter the date of suspension and "S" in the "SR" column. When the suspended contract is reactivated, enter the date of reactivation and "R" in the "SR" column. You only have 30 calendar days from the suspension or reactivation date to enter this information into the computer.
- Plant establishment: For projects requiring retentions be held at 5 percent for the contract's life, enter an "X" in the "PE" column.
- Begin construction date: Enter the date that contract time begins, usually 15 calendar days after the approval date. This is the date used to calculate the number of working days that determine satisfactory progress and the percent of time elapsed.

5-103B (1c) Card type C06 to C08

Resident engineer's mailing address: On the first line, enter the resident engineer's last name first, followed by a comma. Then enter a space and the first name, followed by a space and middle initial (SMITH, John C.). On the second and third lines, enter the mailing address of the construction field office. Warning: The computer program treats all three lines as a single "data field." If you need to change this field, you must reenter all three lines.

5-103B (1d) Card type C09 to C14

Only the Division of Construction progress pay coordinator can change the legal name style address in CAS.

To change the contractor's local address: Enter the contractor's name on line C09, and as necessary, continue the name on lines C10 through C12. Leave unused lines blank.

Enter the contractor's local address on lines C13 and C14. Also enter the contractor's local phone number on line C14.

Warning: You must enter the entire name and address each time you wish to update any or all of these lines. You cannot update a single line.

5-103B (1e) Card type C15

For the following data fields under card type C15, do the following:

- Structure representative's name: If the contract requires structure work, enter the structure representative's name even if it is the same name as the resident engineer's. Enter only the last name and first initial (SMITH, J.)
- Structure responsible unit: This unit is the source unit that the Office of Structure Construction uses to code its time sheet. The unit may range from 550 to 599.
- Original authorized amount for structure work: At the contract's start, the resident engineer and the structure representative must determine the initial value of the required structure work. This value should include any portion of the contract item for mobilization that will be claimed as structure work. Warning: If this amount is not on file, the Office of Structure Construction cannot obtain any reports for this contract.
- Structure mobilization percentage: Enter, to the nearest whole percent, the portion of the contract item for mobilization that will be claimed as structure work.
- Structure completion: Enter a "C" to indicate the completion of structure work.

5-103B (2) Processing

CAS analyzes the changes made to the computer file and does the following:

- CAS notes whether the district is updating the "Responsible Unit" field for the first time. If so, CAS prints a dummy Project Record-Estimate form and a Contract Contents Report.
- If this update is not the first update, CAS prints only the first page of the Contract Contents Report. CAS prints the dummy Project Record-Estimate form only if the contractor's name and address field has been changed.
- CAS also prints a listing of update requests, which is a summary report of all fields that have been updated in this run.

5-103C Contract Transactions

The majority of all data submitted to CAS will be contract transactions from the resident engineer on Form CEM-6004, "Contract Transactions Input." Contract transactions are divided into the following three categories:

- Contract item transactions: These consist of five types of transactions that refer to contract items.
- Miscellaneous transactions: These consist of four types of transactions to handle general project needs.
- Contract change order transactions: These consist of three types of transactions that refer to contract change orders.

The Contract Transaction Processing Module processes this total of 12 transaction types. Together with the services that the CCO and DEWR Processing Modules perform, these modules are sufficient to generate contract records that provide control of progress payments and track the financial status of the contract.

5-103C (1) Transaction Types

The following describes, by category, the 12 possible transaction types:

5-103C (1a) Contract Item Transactions

CAS provides five different ways to refer to a contract item in Form CEM-6004, “Contract Transactions Input.” Another way is by including the item as part of a contract change order. This will cause the approved quantity to be adjusted automatically. Thus, you do not have to account for status changes due to contract change orders. You can reference contract items through the following contract item transactions:

- **Contract item payment:** Make item payments by posting line entries to Form CEM-6004 in any random order. Indicate bridge items by entering “B” in the proper column. If you use the report entitled *Bridge Quantities by Structure*, you will also need to enter the structure number in accordance with instructions in Volume I, Section 6, of the *Bridge Construction Records and Procedures Manual*.
- **Contract item quantity balance:** You may adjust the authorized quantity if necessary by submitting quantity balances as line entries on Form CEM-6004. You might need to make this type of transaction for various reasons. For example, a need might exist because of an incorrect engineer’s estimate for a contract item that would have a major impact on the contingency balance. This transaction type adjusts the authorized final cost for your project, as we will show in our later discussion of progress pay estimates.
- **Contract item anticipated change:** This transaction’s purpose is to give the engineer a method to allocate project funds to a specific contract item based on knowledge of anticipated additional or decreased work. Such transactions affect the estimated final quantity for the item and also the estimated final cost for the project. The effect of these transactions is cumulative. If additional work is authorized by contract change order, a reversing entry is necessary.
- **Contract item final balance:** When work is completed on a contract item, you should enter this fact into the system. This entry will mark the item in the computer file as “Complete.” On all subsequent progress pay estimates, the authorized quantity and the estimated final quantity will default to the amount paid to date, thus automatically balancing out the item. Additional item payments may be made, and the system will continue to balance the contract items.
- **Contract item final balance (“Reopen”):** This transaction allows you to reverse the status of the contract item from “Complete” to “Active.” For example, you would use “Reopen” to change an incorrect entry that showed the item was complete.

5-103C (1b) Miscellaneous Transactions

The four transaction types listed below comprise “miscellaneous transactions,” the second category of contract transactions:

- **Anticipated change:** Use this transaction to record anticipated additional or decreased work when it is not possible or desirable to tie the anticipated change to a specific contract item or contract change order. These transactions are not cumulative and will affect the project’s estimated final cost only on the next progress pay estimate to be generated.
- **Material on hand payments:** These transactions are placed in the computer file, and their sum will appear on the next progress pay estimate that generates payment. For more information about materials on hand, see Section 3-9, “Measurement and Payment,” of this manual.
- **State-furnished materials allotment transfer:** Use this transaction to increase or decrease the value of the state-furnished materials allotment for your contract. The construction allotment will automatically adjust. To increase the state-furnished materials allotment, enter a positive number. (This type of entry will decrease the contingency balance.)
- **Total allotment changes:** Use this transaction to enter into the system any supplemental allotment that increases (or decreases) your contract’s total allotment. The total allotment in the computer file will adjust automatically as will the construction allotment. The construction allotment is defined as the total allotment less the state-furnished materials allotment.

5-103C (1c) Contract Change Order Transactions

The three transaction types listed below comprise “contract change order transactions,” the final category of contract transactions:

- **Contract change order anticipated change:** This transaction has the same effect as does the contract item anticipated change except that a contract change order is being changed.
- **Contract change order final balance:** This transaction has the same effect as does a contract item balance. When work on a contract change order is finished, mark it “Complete” by entering this transaction. As with contract items, additional extra work bills may be paid, and the system will continue to balance the contract change order.
- **Contract change order final balance (“Reopen”):** This transaction allows you to reverse the status of the contract change order from “Complete” to “Active.”

5-103C (2) Completing Form CEM-6004, “Contract Transactions Input”

The engineer will use Form CEM-6004 more often than any other form in CAS. Page 2 of the form provides instructions for completing it, and this section contains a completed sample of the form. See Example 5-1.2, “Contract Transaction Input.”

We cannot overemphasize the importance of legible entries that conform to the instructions for completing the form. Also, because of the high volume of transactions, make your entries on Form CEM-6004 as soon as the information becomes available. Partially filled pages are acceptable.

The sample form in this section shows some transactions. Note that leading zeros are not required in the numeric fields and that the plus sign is not required in the +/ - columns. The following instructions are for the fields common to all transactions:

- Enter the district, contract number, password (if used), and page number. When assigning a page number, be careful because duplicate numbers will cause all transactions on the page to be rejected. You must complete these fields.
- Enter the posting date.
- Enter the source document description. If the transaction type refers to a project source document, (for example, a calculation sheet or a scale sheet), enter into the form's description column an adequate description of the source document. The source document must cross reference to Form CEM-6004. Post the page number, line number, and posting date from Form CEM-6004 to the source document. See Example 5-1.1, "Quantity Calculation," for a typical source document.
- Note: The last six characters of the source document description can be the structure number if this item concerns structure work.
- Mark the structure field with the character "B" if this transaction concerns "structure work." Otherwise, leave the space blank. If you use the report entitled *Bridge Quantities by Structure*, you will also need to enter the structure number in accordance with the instructions in Volume I, Section 6, of the *Bridge Construction Records and Procedures Manual*.

The form's remaining fields are divided into two sections, "Contract Item Entries," and "All Other Entries." If you make any entry in one or more fields of one of the sections, all fields in the other section must be left blank. A single line entry cannot serve double duty.

5-103C (2a) Contract Item Entries

Each type of contract item transaction has its own format. Fill in the various fields as shown on page 2 of Form CEM-6004. The following are the rules for making contract item entries:

- Quantity balance transactions:
 1. Lump sum items cannot be quantity balanced. If you attempt to quantity balance them, the transaction will be rejected.
 2. If the quantity balance is greater than the bid quantity, a warning message is issued.
 3. If the value of the quantity balance exceeds \$100,000, a warning message is issued.
 4. The new authorized quantity is calculated. If it is negative, the transaction will be rejected.
 5. If the new authorized quantity is less than the total payment for the next estimate, a warning message is issued. Take appropriate action on this warning, such as estimating the final quantity and inputting the increase, covering the increase by change order, or requesting the computer to final balance the item. Such action is necessary to keep the project's status of funds current.

- For item final balance and item final balance ("Reopen"), the item status is set to "Complete," or "Active," respectively. The system does not check to see if the item is a lump sum item or a final pay item.
- Item anticipated quantity change:
 1. If the anticipated quantity change is greater than the bid quantity, a warning message is issued.
 2. If the value of the anticipated quantity change exceeds \$100,000, a warning message is issued.
 3. A new estimated final quantity is calculated. If this estimated final quantity is negative, a warning message is issued.
 4. If the new estimated final quantity is less than the total payment for the next estimate, a warning message is issued.
- Item payment:
 1. Any transactions for the item "Mobilization" are rejected.
 2. Any transactions for a void item will be rejected.
 3. If the payment quantity is greater than the bid quantity, a warning message is issued.
 4. If the value of the payment quantity exceeds \$100,000, a warning message is issued.
 5. The new total payment for the next estimate is calculated. If the total is negative, the transaction is rejected. (Negative transactions under "This Estimate" will be accepted.)
 6. If the contract item is a lump sum item and the total payment for the next estimate would exceed 100 percent, the transaction is rejected.
 7. If the contract item is not a lump sum item, the new total payment for the next estimate is compared to 125 percent of the bid quantity and the authorized quantity. Warning messages are issued if the total payment is more than one or both of these.

If the system issues any warning or rejection messages while it processes transactions for a contract item, the complete status of the item will be printed on the Contract Transactions Input Edit report before the system begins processing the next contract item. Use this printout to determine the reason the system issued the message.

- Percentages for lump sum quantity payments must be expressed as decimals. Only three decimal places are available. If 5 percent is to be paid, it must be entered as 0.050; (5.00 is 500 percent).

5-103C (2b) Miscellaneous Transactions

The following are the rules for making miscellaneous transactions:

- Anticipated changes:
 1. If the amount anticipated exceeds \$100,000, a warning message is issued.
 2. If the amount anticipated exceeds 10 percent of the construction allotment, a warning message is issued.

- Material on hand payments:
 1. If the amount exceeds \$100,000, a warning message is issued.
 2. If the amount is negative, a warning message is issued. (The system assumes that this is a correcting entry to a previous transaction accepted by the system and not yet processed for payment.)
 3. A total is calculated for payment for the next estimate. This is the sum of all transactions since the last estimate. If the total is negative, a warning message is issued.
- State-furnished materials allotment transfer:
 1. If the amount of the transfer exceeds \$100,000, a warning message is issued.
 2. A new total is calculated for the state-furnished materials allotment. If it is negative, the transaction is rejected.
- Total allotment changes:
 1. If the amount exceeds \$100,000, a warning message is issued.
 2. If the amount exceeds 10 percent of the total allotment, a warning message is issued.
 3. If the amount of the change is negative, a warning message is issued.
 4. A new total allotment is calculated. If the amount is negative, the transaction is rejected.
 5. If the new total allotment is less than the total paid to date on the last estimate, a warning message is issued.

5-103C (2c) Contract Change Order Transactions

The following are the rules for contract change order transactions:

- For the contract change order anticipated change, the new estimated final cost is computed for the contract change order and reported. The system does not do any checking.
- Contract change order final balance and final balance (“Reopen”):
 1. The contract change order status is set to “Complete,” or “Active,” respectively. The system does not do any checking.
 2. For a contract change order final balance (“Reopen”), the word “Reopen” must be left-justified.

5-103C (2d) General

The Contract Transactions Processing Module will sort your transactions into order, will edit each transaction for reasonableness and conformance to this manual, and will either accept or reject each transaction. From this processing, the system will issue a report entitled “Contract Transactions Input Edit.” This report will list the disposition of each line entry that you submitted. A comprehensive set of warning messages exists. Do not ignore warning messages on the report.

Do not use the same page and line numbers again.

You will find a summary on the last page of the Contract Transactions Input Edit report. The summary lists each Form CEM-6004 page that was processed and the numbers of transactions on that page that were accepted, for which warnings were issued, or that were rejected. Any missing line numbers on the page (breaks in the sequence of line numbers) will be printed. Use this list to ensure that all the transactions were entered into the system.

Examine the remainder of the report. You must respond to rejected entries and possibly to warnings.

5-103C (2e) Audit Trail

In any accounting procedure, it is necessary to link transactions to the specific source documents that generate the transactions. This linking is called an audit trail. Contract change orders and daily extra work reports carry unique identifying numbers that CAS uses in its processing. Here, a good audit trail is automatic. However, contract transactions are different since there is no automatic reference to a unique source document.

CAS provides methods of cross-reference. You are responsible for an adequate audit trail. Note that Form CEM-6004 is an intermediate document in this respect.

Example 5-1.1 Quantity Calculation

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

QUANTITY CALCULATIONS

CEM-4801 (REV 11/1992) CT# 7541-3520-0

SHEET OF

| | | | | |
|--|----------|--------------------------|-------------|---|
| JOB STAMP 07-1381U4 07-LA-210-47.5/57.3 Fed. No.: None | ITEM | 8 Temp. Railing (Type K) | FILE NO. | 48-8-2 |
| | LOCATION | Ramp 3 | SEGREGATION | YES <input type="checkbox"/> NO <input type="checkbox"/> |
| | CALC. BY | I.M. Engineer | DATE | |
| | CHK. BY | U.R. Wright | DATE | |

| | | |
|--|---|-------------------------|
| Field Measurement: | | Estimated Quantity: 450 |
| Field Counted: | ✓ | Unit of Measure: meter |
| Final Pay Item: | | Unit Price: \$20.00 |
| | | 75% = 337.5 |
| | | 125% = 562.5 |
| Remarks Or Other Calculations: | | |
| 152.4 meters placed on 5-03-01 at Maple St. onramp ✓ | | |
| Material Inspection/Release: Certificates of compliance obtained on 4-29-01 | | |
| <div style="border: 1px solid black; padding: 5px; text-align: center;"> PAY THIS ESTIMATE: 152.4 ✓ PREVIOUS PAID: 140.2 ✓ TOTAL TO DATE: 292.6 ✓ </div> | | |

POSTED BY
Office Engineer

DATE
05/19/01

POSTED TO
CEM-6005, page 4, line 5

CEM4801



1 DIST 1 2 3 4 5 4 1 5 # 2
CONTRACT NO. 9
PASSWORD

Example 5-1.2 Contract Transaction Input

| LINE NO. | DATE | | SOURCE DOCUMENT DESCRIPTION | CONTRACT ITEM ENTRIES | | | ALL OTHER ENTRIES | | | | ENT BY | ✓ BY |
|----------|------|-----|-----------------------------|-----------------------|------------------|------|-------------------|---|------------|------|--------|------|
| | MO. | DAY | | ITEM NO. | QUANTITY (UNITS) | CODE | CCO NO. | + | AMOUNT(\$) | TYPE | | |
| 01 | 05 | 19 | 48-114-117 | 1 | 1,273 | 000 | | | | | IME | URW |
| 02 | 05 | 19 | MAILL BOXES ON ELM ST | 28 | 1,150 | 000 | | | | | IME | URW |
| 03 | 05 | 19 | ANNT. ELLIM. AC ON FLIZ | | 1,510 | 000 | | | | | IME | URW |
| 04 | 05 | 19 | BALL. COMPLY. ITEM 6 | 6 | | | | | | | IME | URW |
| 05 | 05 | 19 | 48-8-2 | 8 | 1,524 | 000 | | | | | IME | URW |
| 06 | 05 | 19 | REISTORE SITUATION | 9 | | | | | | | IME | URW |
| 07 | 05 | 19 | REIV GRADE FR 2 L IN E | | | | | | | | IME | URW |
| 08 | 05 | 19 | 51-4-2 | | | | | | | | IME | URW |
| 09 | 05 | 19 | 52-4-1 | | | | | | | | IME | URW |
| 10 | 05 | 19 | 53-4-1 | | | | | | | | IME | URW |
| 11 | 05 | 19 | DELET DRAINAGE | | | | | | | | IME | URW |
| 12 | 05 | 19 | BALL. COMPLY. CCO 118 | | | | | | | | IME | URW |
| 13 | 05 | 19 | REISTORE SITUATION | | | | | | | | IME | URW |
| 14 | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | |

IN CASE OF QUESTION CONTACT: NAME I. M. Engineer
PHONE (123) 345-6789

VERIFY

5-103C (3) Computer Processing

The contract item totals listed below are kept for contract work and also for structure work so that the totals can be reported separately when appropriate. Records of the financial status of the contract items are maintained as follows:

- Bid quantity: This quantity cannot be changed.
- Approved quantity: This item is the total of the bid quantity and the algebraic sum of the quantity changes due to contract change orders that have been filed.
- Authorized quantity: This item is the total of the approved quantity and the algebraic sum of the quantity balances that the engineer entered.
- Anticipated final quantity: This item is the total of the authorized quantity and the algebraic sum of the anticipated quantity changes that the engineer entered.
- Item status flag: This flag is a file mark that indicates whether a contract item is “Active,” “Deleted,” or “Completed.”

5-103D Contract Change Orders

The CAS maintains separate records for each approved contract change order on a project. As each contract change order is approved, it must be entered into CAS through the use of Form CEM-4901, “Contract Change Order Input.”

The method of entering each contract change order into the system may vary from district to district, but can be done as follows:

- The resident engineer writes a contract change order and completes Form CEM-4901. For approval procedures, see Section 5-3, “Contract Change Orders,” of this manual. The approval date must be entered on Form CEM-4901, and the Form CEM-4901 data is then entered into CAS.
- The result of entering the form data for each contract change order will consist of a contract change order report and a disposition report.
- The resident engineer should review the contract change order report and correct any errors. CAS automatically makes the following changes to the contract records:
 1. The authorized final cost, the estimated final cost, the authorized contingency balance, and the estimated final contingency balance are adjusted to new values.
 2. The totals for changes in extra work, adjustment of compensation, and contract items are adjusted to new values.
 3. Each affected contract item will have the approved quantity adjusted to reflect the change.
- Immediately after Form CEM-4901 has been processed, CAS will accept extra work bills and anticipated changes that refer to the contract change order.
- When CAS processes a supplemental contract change order, the daily extra work reports in the holding file (due to insufficient funds in the original contract change order) will be made available for payment.

5-103D (1) *Completing Form CEM-4901, "Contract Change Order Input"*

Use Form CEM-4901 to perform the following functions:

- File a new contract change order in the computer file.
- Update (change existing information) a contract change order in the computer file.
- Replace a filed contract change order with another contract change order.
- Delete a contract change order from the computer file.

Completing the form depends on which of the above functions you desire.

5-103D (1a) File

Enter the contract and contract change order numbers at the top of the form. The original contract change order is supplement "zero"; enter the zero on the form. Ignore the function and override boxes at the top of the form.

The remainder of the form is divided into five sections labeled "Card Type 1," "Card Type 2," "Card Type 3," "Card Type 4," and "Card Type 5." Complete only those sections that are applicable.

Card Type 1: This section is required. Complete each entry in the section. If the entry for the field "Net Money Change This CCO" is zero, enter \$0.00. The field "Time Extension Days" should include the number of working days added (or deleted), zero (0), or be coded "DEF" (instead of a number) if the contract change order was written with a deferred time adjustment clause. Enter a category code on every contract change order. Left-justify this code.

Card Type 2: If extra work or adjustment of compensation is not part of your contract change order, leave these fields blank. Otherwise, define the payment method by making three entries for each change:

- Make the first entry by checking either the "EW" or "AC" box to indicate extra work or adjustment of compensation.
- Make the second entry by choosing one of the "FA," "LS," or "UP" boxes to indicate whether payments will be made by force account, lump sum, or unit price.
- Make the third entry by entering the dollar amount of the change (increase or decrease).

If multiple items of work in the change order are using the same pay method, they must be totaled. Also, you can enter each pay method only once per change order. If there is more than one type of extra work or adjustment of compensation on the contract change order, continue making successive line entries.

Card Type 3: If you have no changes for contract item prices, do not complete this section of the form. Otherwise, furnish the item number and increase or decrease the quantity for each changed item.

Card Type 4: If all or part of the work to be done under the contract change order is structure work, enter the net dollar amount involved. This amount will contribute to the contract change order changes line of the structure totals shown on the next estimate.



If this section of the form does not apply or the amount is zero, leave the section blank.

Card Type 5: This section is required.

For federal participation, enter the FHWA funding participation determination on every contract change order. If participation is in part, indicate the breakdown for participation-in-part funding.

For federal segregation, if more than one funding source exists, show the percentage allotted to each federal funding source.

5-103D (1b) Update

Use this function in the following way to replace any incorrect information in Card Type 1 or Card Type 4:

- Enter the contract and contract change order numbers.
- Place the letter “U,” in the function box at the top right of the form.
- Enter the correct information in the appropriate fields. All information in Card Type 1 is always required.
- Leave all other fields on the form blank.
- The module for processing contract change orders will identify the fields that you have completed and will change this information in the computer file.

5-103D (1c) Replace

If a contract change order has been stored with incorrect information that cannot be corrected by the update function, use the replace function in the following way:

- Complete the entire form exactly as you would for the file function, using correct information.
- Place “R,” in the function box at the top right of the form.

The module for processing contract change orders will replace the data stored in the computer file with the new contract change order.

If payments have already been recorded against a payment method that you are trying to eliminate, it is not possible to immediately replace an old contract change order with a new one. The same holds true if the payment to date exceeds the authorized amount. In these cases, the system requires that you do the following:

- Enter corrections for the extra work bills that reverse payments to date to zero for the particular method of payment to be eliminated. For payments exceeding the authorized amount, enter corrections for the extra work bills to reduce payments below the authorized amount.
- Submit the replace request.
- After the contract change order has been replaced, reenter the extra work bills that were reversed.

When possible, use the update function instead of the replace function.

5-103D (1d) Delete

You can eliminate a contract change order from the computer file as follows:

- Enter the contract and contract change order numbers.
- Place the letter “D,” in the function box at the top right of the form.

As with the replace function, a contract change order cannot be deleted until all payments have been reduced to zero through correcting entries on the daily extra work reports.

5-103D (2) Edits

The following lists some of the edits that a contract change order must pass through before the system will accept it:

- The contract change order number and the change order supplement number must be filled in or the change order will be rejected.
- The contract change order description cannot be blank, or the contract change order will be rejected.
- The net change amount cannot exceed the construction allotment. If the net change amount does exceed the construction allotment, the system will issue a warning message but will still file the contract change order.
- The approval date must be after the bid opening date and less than or equal to “today’s” date; otherwise, the contract change order will be rejected.
- If the time extension days exceed 10 percent of the working days in the contract, the system issues a warning message but will still file the contract change order.
- If any payment method appears more than once on the input cards, the contract change order will be rejected.
- If you enter any contract item change for a void item, the system will reject the contract change order.
- Lump sum items may appear on contract change orders only as a deletion of that item. Any increase or decrease in a lump sum item will be rejected.
- You can enter a contract item on a contract change order as an increase and also as a decrease. If the item appears a third time, the system will reject the contract change order.
- If the contract item “mobilization” appears on a contract change order, the contract change order will be rejected.
- If the quantity change entry for a contract item exceeds the bid quantity, a warning message will be issued.
- The net dollar amount for the structure work on the contract change order must be greater than the sum of the negative changes and less than the sum of the positive changes, or the contract change order will be rejected.
- The net dollar change for the contract change order must equal the sum of the dollar amount in Card Type 2 and the extended dollar amounts for the quantities in Card Type 3, or the contract change order will be rejected.

- If the contract change order is already on file, the system will reject this duplicate entry. Additionally, if this contract change order's number exceeds by five the largest contract change order number on file, or if the supplement's number is more than two above the latest supplement on file for this contract change order, the system will reject the contract change order. However, if you checked the override field on the input field, the system will bypass such responses.
- If the contract is completed, a warning is issued.

If you request the replace or delete function, more extensive processing is done. The system checks to see if it can maintain the payment to date under a payment method. If the system cannot maintain the payment to date in this way, it rejects the request to replace or delete. A rejection notice is generated along with an explanation of what must be done to resolve this unacceptable situation.

The following is an example of this type of problem:

- A contract change order is entered for extra work at force account and accepted by the system.
- Subsequently, extra work bill payments are recorded against the contract change order.
- A request is entered to delete the contract change order from the computer file. In this case, the system will reject the delete request because the payment method would be eliminated. There are no other supplements to this contract change order. The system requires that entries to correct extra work bills be to reverse payments to date to zero. In such a case, the system would accept a delete request. In the more complicated cases where supplements to a contract change order exist, the system makes similar demands.

At this point, the processing of the contract change order is complete. However, when a supplemental contract change order is processed, the daily extra work reports in the holding file (due to insufficient funds in the original contract change order) will be made available for payment. The system produces a report, called a "DEWR Release From the Holding File." This report shows the action the system took.

5-103E Extra Work Billing

This module's purpose is to compute the amount of payment for extra work performed under a contract change order. This includes the following:

- Editing input information
- Retrieving and updating the contract change order
- Performing logic edits
- Conducting audit checks
- Performing computations
- Filing the extra work bill for payment
- Producing an edit report and daily extra work report

In addition to these functions, this module allows for entering corrections to filed extra work bills. Extra work bills or corrections to filed extra work bills will not be rejected because of insufficient funds (subject to the limitations in Section 3-904, "Payment for Extra Work," of this manual). Instead, the system will place the extra work bills or the corrections to filed extra work bills in a holding file to await the

resident engineer's further action. Usually, the resident engineer must write a supplemental contract change order to provide additional funds; the supplemental contract change order will make the appropriate extra work bills available for payment.

Use Form CEM-4902, "Extra Work Bill (Short Form)," to enter basic information related to extra work performed under a contract change order. The following describes the procedures for obtaining the information from the contractor, entering the information into the computer, and producing the daily extra work reports.

5-103E (1) Preparing Form CEM-4902, Extra Work Bill (Short Form)

The contractor may enter extra work bills on the Form CEM-4902, "Extra Work Bill (Short Form)." Or, if more entries are required for equipment, labor, or material, the contractor must use the four part forms CEM-4902A, CEM-4902B, CEM-4902C, and CEM-4902D.

The contractor initiates forms containing force account payment and submits them to the resident engineer. The resident engineer initiates forms containing payment at agreed prices. The backs of the forms contain the basic instructions for completing the forms. The following information supplements the instructions on the forms:

5-103E (1a) Basic Information (Title Page)

Do the following for the basic information:

- The contract change order number: Right-hand justify this number; for instance, contract change order 1 is 001, contract change order 10 is 010.
- Report number: The contractor should leave the report number blank. Duplicate numbers will be rejected (except for corrections to previous bills).
- Date performed: A separate extra work bill must exist for each day on which force account work is performed (except for work done by a specialist). Enter the date the work was performed in these spaces. For extra work bills covering invoices only, enter the date on which the material was used. If this entry is not practical, enter the current date. You must enter a date in this field. You may enter the acronym "VAR" in the date performed field if the pay method is lump-sum unit-price or if equipment and labor are not present on the bill.
- Date of report: Enter the date on which the report is prepared.
- Payment method: Ensure the method selected matches one of the methods authorized by the contract change order.
- Bridge: Place the letter "T" in this box if toll bridge work is involved and you want to apply a 10 percent markup to equipment and material and a 25 percent markup to labor.
- Fifty percent flagging: You must include on the extra work bill the total hours spent on flagging because the computer will make payment of only 50 percent of the total. For flagging that is not subject to the 50 percent split, submit separate extra work bills.

- Labor surcharge: The contractor should enter this surcharge as a whole number; for instance, “15 percent” is entered as “15.” The contractor should obtain the applicable percent from the effective *Labor Surcharge & Equipment Rental Rates (Cost of Equipment Ownership)* book. This surcharge is for regular hours. The system will apply the overtime surcharge based on the regular hour surcharge.
- Work performed by: This field should contain the name of the organization (the contractor, subcontractor or other) that performed the work. If the extra work bill is for an invoice only, enter the name of the organization to which the invoice was addressed. Submit a separate daily extra work bill for each organization’s work.

5-103E (1b) Equipment

Do the following for equipment:

- Equipment identification number: Enter this number (Required.) It can be any number that the contractor assigned to the equipment for specific identification.
- Equipment description: Enter the description, which consists of four items: the “Class,” “Make,” “Code,” and “Attach” (attachments). The equipment description must come from the applicable *Labor Surcharge & Equipment Rental Rates (Cost of Equipment Ownership)* book. Make a copy of this publication available to the contractor. You can obtain from the Division of Construction’s web site a listing of miscellaneous equipment, for equipment not shown in the *Labor Surcharge & Equipment Rental Rates (Cost of Equipment Ownership)* book.
- For equipment that is neither in *Labor Surcharge & Equipment Rental Rates (Cost of Equipment Ownership)* book nor available from the web site’s miscellaneous listing, the contractor must request a rate from the resident engineer. The resident engineer will obtain an approved rate from the Division of Construction’s rental rate engineer.
- Equipment for which a contract change order has established the rental rate will not have an equipment description and must be included as a unit price payment on the material charges portion of Form CEM-4902, lines 24–33 of the daily extra work report.
- The following explains the procedures for “Class,” “Make,” “Code,” and “Attach,” within equipment description:
 1. Class: This portion of the equipment description will be found in the *Labor Surcharge & Equipment Rental Rates (Cost of Equipment Ownership)* book under the heading for a particular class. For instance, after “Hydraulic Cranes and Excavators, Crawler Mounted” you will find the class “HCECL.”
 2. Make: For the equipment illustrated under “Class” above, you will find the “Make” portion of the equipment description in the left-hand column. For instance, after “Bantam” you will find the make “BANT.”
 3. Code: For the equipment illustrated under “Class” and “Make” above, you will find the “Code” portion of the equipment description in the “Code” column. For instance, after “Model C-266” you will find the code “0680.”

4. Attach: You will find this portion of the equipment description in the front of the *Labor Surcharge and Equipment Rental Rates (Cost of Equipment Ownership)* book. The rate for the equipment under "Class," "Make," and "Code" above includes all attachments and accessories. Therefore, leave this column blank.

Enter all equipment descriptions beginning at the left of each field. Include all letters, numbers, dashes, or other symbols as they are shown in the *Labor Surcharge & Equipment Rental Rates (Cost of Equipment Ownership)* book.

- Regular hours for which payment is to be made: Enter the regular hours for which payment is to be made. Regular hours may not exceed 8 unless you are entering a daily rate item. If the date the work was performed is various, you may enter up to 99 in the regular hours field. Various is used for equipment at day rates.
- Overtime hours: Enter the overtime hours worked. Overtime hours may not exceed 16.

5-103E (1c) Other Expenses Subject to Labor Markup

This portion of the form is for travel expenses that cannot be entered as "Subsistence" under "Labor."

If the units and rate are already entered, the computer will calculate the amount. Otherwise, enter the amount, and this figure will be used.

Note: If you use the "Unit" and "Rate" fields, leave the "Amount" field blank. If you enter an amount in the "Amount" field, don't make an entry in the "Unit" and "Rate" fields.

5-103E (1d) Material or Work Done by Specialists, Lump Sum, or Unit Price Payments

The following explains the procedures for completing the Form CEM-4902 material section:

- Material: Note that the material entry will not be processed unless there is a value in both the "Units" and the "Unit Cost or Net Pay" fields. Do the following for material:
 1. Invoice date: Preferably, enter the date of the invoice to help in checking for duplicate billing. However, if entering the invoice date is not practical, enter the date the material was used.
 2. Invoice description: Enter a brief description of material.
 3. Units: Normally, enter the unit one (1.00) for materials used.
 4. Unit cost or net pay: In this column, enter the amount for which payment is due. Normally, this amount is the cost of the material plus tax, if applicable, less any discount offered.
- Work Done by Specialists: Enter this item in the same manner as described under "Material" above.

- Lump Sum: Follow the procedures below for this entry:
 1. Vendor name and invoice number: You do not need to make any entries in the vendor column or the invoice number column.
 2. Date: Enter the date the work was performed. When entering this date is not practical, enter the current date.
 3. Invoice description: Enter “per CCO No. _____.”
 4. Units: Enter the units to be paid as a percentage of the lump sum amount, expressed in decimals. For instance, express 75 percent as 0.75. This figure must never exceed a total of 1.000.
 5. Unit cost or net pay: Enter the lump sum amount from the contract change order.
- Unit price payments: Enter this item in the same manner as described under “Lump Sum” above.
- Units: enter the number of units to be paid.
- Unit cost or net pay: enter the unit cost from the contract change order.

5-103E (1e) Signature of Prime Contractor’s Representative

For all force account payments, the contractor or contractor’s authorized representative must sign the extra work bill. For agreed price payments, the signature is not required.

5-103E (2) Processing Form CEM-4902

The resident engineer receives Form CEM-4902, "Extra Work Bill (Short Form)," from the contractor, reviews the form, and if it is satisfactory, signs the extra work bill and approves it for entry into CAS. When reviewing the submitted extra work bill, the resident engineer must be guided by the policy contained in Section 3-9, "Measurement and Payment," of this manual. The following explains how the system will process Form CEM-4902:

- You must request CAS to print a copy of the extra work bill after it has been entered into the system before it will be paid.
- Computer programs will perform the following processes:
 1. Edit all information for acceptability. For example, numeric data must be in numeric form, or the program will issue a warning.
 2. Select information from the equipment database, for example, rates, descriptions, and attachments.
 3. Validate the contract number, contract change order number, report number, type of work (payment method), dates, corrections, labor surcharge, and equipment description.
 4. Audit right-of-way delay and the hours equipment and labor are used for work.
 5. Compute extensions, markups and summaries.
 6. Ensure the authorized amount (for instance 100 percent or \$15,000) is not exceeded.
 7. File a validated extra work bill for payment at the estimate time.
 8. Produce a daily extra work report. This report will contain all the information as entered on the extra work bill plus equipment descriptions, extensions, markups, total payment, and contract information.
 9. Produce an edit report. This report will contain processing results. These results are tabulated by contract change order within a contract. If the system rejects an entry, the rejection messages will be included on the daily extra work report. If the system accepts the extra work bill, all warning messages will be contained on the edit report.
- After the reports have been printed and the district construction office has received them, the district will forward copies to the resident engineer. Daily extra work reports are printed in two parts, one for the contractor, one for the resident engineer.

5-103E (3) Corrections to Extra Work Bills

You can make corrections to the extra work bill after it has been entered into the system, but there is a limit of four corrections per extra work bill. See *Entry of Extra Work Bills Manual (CASEWBM)*

5-103F Generating Estimates

CAS produces the following five types of estimates on demand:

- Monthly progress estimate
- Progress estimate after acceptance

- Supplemental progress estimate
- Semifinal estimate
- Final estimate

The resident engineer will regularly request the monthly progress and the progress after acceptance estimates while the remaining three types of estimates usually will be requested in cooperation with, or by, the district construction office.

Supplemental progress estimates may only be run between the completion of the monthly progress estimate run and the 15th of the following month.

Producing an estimate is completely automatic, based on data previously stored in the computer.

In addition, CAS will produce two other types of estimates that do not generate payments. These estimates are simply statements of the current status of the computer files. The following are the two types:

- Status purpose only estimate
- Proposed final estimate

5-103F (1) Procedure

Before requesting the first monthly progress estimate, enter the date work started and the responsible unit on Form CEM-6003, "Progress Pay-Estimate Project Initiation or Update." The Division of Construction progress pay coordinator enters the approval date. If the approval date is not in the computer file, the system will reject the estimate request.

The procedure for processing an estimate involves the following steps:

- Preparing Form CEM-6001, "Project Record-Estimate Request," and verifying the estimate. Transmit these to the district office.
- Computer processing your estimate and printing the reports.
- The district construction office verifies the estimate results.
- Returning the estimate reports to the resident engineer.

The schedule for completing the pay process and making payment to the contractor is rigid. This rigid schedule means all people involved must adhere to their individual schedules. District construction offices will advise resident engineers of the schedules.

5-103F (1a) Preparing Form CEM-6001, "Project Record-Estimate Request"

To request an estimate, prepare Form CEM-6001, "Project Record-Estimate Request." Complete this form accurately in accordance with the following:

5-103F (1b) Estimate Parameters:

For the estimate parameters follow the instructions below.

- Enter the contract number.
- Enter the estimate number. This number must be one greater than the last estimate that was successfully processed and paid.

- Enter the work period's ending date in the estimate for the form's "Work Performed Through" field. For a progress estimate or a supplemental progress estimate, enter the 20th day of the month. For all other types of estimates, use the date of completion.
- If this is a monthly progress estimate, place an "X" in the matching box on the form; otherwise, leave the box blank.
- If this is a progress estimate after acceptance, place an "X" in the matching box on the form; otherwise, leave the box blank.
- Enter the estimated date of completion. This date should be the resident engineer's best estimate, not necessarily the computed date. If this estimate is not a progress estimate, enter the date of completion.
- Enter the values as of the "date work performed through" for chargeable working days, weather nonworking days, approved time extension days (contract change order), and approved time extension days (other) in the four matching fields of the form. The system will check the chargeable working days and weather nonworking days against the working days calendar and inform you of possible entry errors. However, it cannot check the two types of time extension days. These values affect the system's computation of percent time elapsed.
- If you have a landscape contract that is in the plant establishment period, check one of the two boxes to indicate whether progress is satisfactory or unsatisfactory. These boxes are not for highway contracts that contain "Type 2" plant establishment periods. If you are unsure of this status, contact the district construction office after reading the special provisions.
- The system determines whether contract progress is satisfactory or unsatisfactory. Occasionally, a situation arises where, even though progress is mathematically unsatisfactory, the resident engineer wishes to override the system and record satisfactory progress. To accomplish this override, place an "X" in the field, "Override Unsatisfactory Progress." Also see the second bullet below this one about projects with dual time limits.
- For some contracts, the standard manual formula does not apply for computing percent time elapsed. For such contracts, interpret the special provisions, and determine this percentage. Enter the percent in the box on the form; this will override the system's calculation.
- If you have checked "Override Unsatisfactory Progress" (see the bullet two up from this one that discusses overriding the system) or entered a number in percent time elapsed (see the previous bullet), enter a short explanation in the 25 spaces immediately below these fields on the form. Typical entries might be "CCO days pending" or "Nonstandard time format."
- If the estimate is a supplemental progress estimate, proposed final estimate, semifinal estimate, or final estimate, check the appropriate box. Note that on a supplemental progress estimate the date for "Estimate for Work Performed Through" and all of the working day information should be the same as the date for the last estimate.

- If this estimate is a rerun (a recalculation) of a prior successful estimate, check the recalculation box. Note that, if the last estimate processed was a status purpose only estimate, you are not rerunning an estimate this month; instead, you are trying to run the estimate that did not generate payment. Normally, the district office will enter requests to rerun an estimate.

5-103F (1c) Deductions:

If you wish to take one or more deductions or to return one or more deductions from a prior estimate, enter them on Form CEM-6001. If you wish to rerun an estimate or to pay an estimate after a status only estimate, you still must enter the deductions again because any deduction stored in the computer file and carrying this estimate number will be erased automatically. You can enter five types of deductions on this form. Each deduction entered requires an alpha code to be placed in the form's type field and an entry in the description field. Use a minus sign to take a deduction and a plus sign to return a previous deduction. The following lists the rules by type of description:

- Administrative deductions: Enter "ADM" in the type field. Both plus and minus deductions are allowed.
- Equal employment opportunity deductions: Enter "EEO" in the type field. Both plus and minus deductions are allowed, but plus deductions should be adjustments or reversals of deductions taken on prior estimates. If you wish to take an EEO deduction on this estimate, leave the amount field blank. The system will compute the deduction amount for you. Only one "blank" EEO deduction, normally entered by the labor compliance officer, can appear on the form. Note: The system will not accept EEO deductions if the contract item payment for this estimate is zero. It may be necessary to enter the minimum amount of \$1000.
- Labor compliance violation deductions: The labor compliance officer usually makes these entries on the form. The officer will enter "LCV" in the type field. The rules for LCV deductions are identical to those for EEO deductions. Note: "LCV" deductions will not be taken if the contract item payment for this estimate is zero. It may be necessary to enter the minimum amount of \$1000.
- Liquidated damages deductions: Enter "LIQ" in the type field. Both plus and minus deductions are allowed. Plus deductions reverse earlier deductions.
- Other outstanding documents deductions: Enter "OOD" in the type field. If you wish to take this deduction, leave the amount field blank. The system will compute the amount for you. Take this deduction only once per contract. The system will maintain the correct deduction on subsequent estimates by generating "OOD" in the type field with a description, "MAINTAIN OOD DEDUCT." You can reverse the deduction at any time by entering a plus amount that exactly reverses the OOD deductions to date from the previous estimate. Negative OOD deduction amounts are never allowed on the input form.

After carefully preparing Form CEM-6001, promptly send it to the district office. The specific deadline for submittal may vary by district.

5-103F (2) Computer Processing

Once you have made your entries on Form CEM-6001 and transferred them to the computer, the system edits the estimates and then produces reports showing the results of the system's processing.

5-103F (2a) Estimate Edits

Once Form CEM-6001 has been entered into CAS, CAS will do the following:

- Edit Form CEM-6001 for consistency with previous estimates and with the working days calendar stored in the computer.
- Identify and summarize all daily extra work reports entered in the system and eligible for payment since the last estimate.
- Identify and summarize all contract transactions entered in the system since the last estimate.
- Identify and balance the contract change orders that require balancing.
- Identify and balance the contract items that require balancing.
- Make calculations for the item "Mobilization" (if necessary), for the various deductions and retentions, for percent time elapsed, for percent complete, and for various status totals, such as authorized final cost. The system also determines whether the contractor's progress is satisfactory.
- Edit any deduction submitted for processing on Form CEM-6001. Special attention is given to three of the deductions as follows:
 1. If the resident engineer has submitted an EEO deduction, CAS computes the amount as 10 percent of the contract item payment on this estimate, or a minimum of \$1,000 or a maximum of \$10,000, and places the deduction on file.
 2. If the resident engineer has submitted an LCV deduction, the system performs the same calculation as for EEO deductions described above.
 3. If the resident engineer has submitted an OOD deduction, the system will compute the deduction under the following conditions:
 - a. The contract has been completed, or retention is being reduced because the percent complete exceeds 95 percent. If one of these conditions is not met, the deduction will be rejected.
 - b. The total of all OOD deductions from prior estimates must be zero, or the deduction will be rejected. An OOD deduction should be taken only once for a contract.
 - c. If the first two conditions are met, the amount of the deduction is calculated as 5 percent of the total work completed to date less mobilization, or \$10,000, whichever is less.
- Further deduction processing as follows:
 1. If the total to date for an OOD deduction is negative, the system will check whether the value for has changed since the last estimate for total work completed to date less mobilization. If the value has changed, the system will generate a new OOD deduction with a description,

“MAINTAIN OOD DEDUCT,” and an amount equal to the difference between the amount demanded by the formula and the amount of the total to date for this type of deduction. Thus, an OOD deduction, once submitted, will be maintained at the formula’s value unless it is exactly reversed by a positive deduction entry on Form CEM-6001.

2. For each type of deduction, you cannot give back more than has been taken. If you make this error, the estimate will fail. Messages are produced stating which deduction is in error.
 3. At this point in the processing, the final values are computed for total work completed and total payment to the contractor. If there are “Limitation of Payment” dates and amounts in the special provisions for this contract, the Division of Construction progress pay coordinator will have entered them in the computer. The system will check the period ending date of this estimate and will generate or return any split-year-financing deductions that are necessary under the contract’s terms.
 4. If retention is being released on this estimate and the total to date for liquidated damages is zero, the system will issue a warning message.
 5. The system automatically computes overbid item deductions as required. These deductions are taken and returned at the appropriate times.
- Makes calculations for the progress payment voucher, including retentions and payments to escrow accounts.
 - Determining the success of the estimate’s processing.
 - If processing is successful, CAS prints your estimate.
 - If this estimate is for a zero or negative progress payment, the system prints a status purpose only estimate.
 1. If the total authorized final cost is greater than the construction allotment, CAS will issue a severe warning.
 2. If the total payment to date to the contractor on this estimate is greater than the construction allotment, the estimate will fail.

5-103F (2b) Estimate Output

Once CAS has processed the estimates, it produces the following reports:

- Schedule of extra work
- Schedule of deductions
- Project record estimate
- Project status
- Work done by office of structures
- Progress payment voucher

Only two copies of the estimate will be sent to the field, one for the resident engineer and one for the contractor. The contractor also must receive the first three reports listed above and the last report listed above.

In addition to the estimate documents listed above, CAS also produces a report called “Estimate Processing Results.” This report is the tool by which the resident engineer can check the “estimate package.” This report has the following sections:

- Edit messages: The system can produce many possible messages. If your estimate is rejected, the exact reason will be found here. To assist in preventing overpayments, among other problems, warning messages have been set based on carefully chosen tolerances. You must read these messages carefully.
- Transaction selection: The system will print a list of the exact pages and lines of contract transactions that were used to produce the estimate. This list enables you to verify that all the contract transactions you submitted were used to produce the estimate.
- Contract change order processing: This lists any balancing of contract change orders by the system. Occasionally, the list contains warning messages, too.
- Contract item processing: This part of the report does the same things as described in the bullet above, but for contract items instead of contract change orders.
- Contract transactions list: This list identifies all contract transactions used to generate your estimate. If you question any line item on the project record-estimate, examine the detailed records to see how the system derived its totals.
- Structure totals: This item summarizes all structure work the system found while processing the estimate.

5-103F (3) Potential Problems

For the unwary, several points in the estimate process can cause errors. These problems result from misunderstanding what constitutes an estimate and how the estimate number should be increased from estimate to estimate.

On the title page of the project record-estimate and in the estimate processing results, the system will print the type of estimate generated. If the estimate is one of the five types listed previously under the heading “Generating Estimates,” a valid estimate was generated.

The progress pay system requires that the estimate number be increased only by valid estimates. Thus, if you request estimate number 3 to be processed, but the system generates a status purpose only estimate, a valid estimate was not generated. Request estimate number 3 again for the next estimate.

Another potential problem involves two types of contract transaction: materials on hand and anticipated changes. These transactions apply to a specific estimate period. If the estimate generated by the system is a status purpose only estimate, these transactions have not been “used.” They will appear on the next valid estimate generated. If their appearance on the next estimate is not satisfactory, you must use reversing entries before requesting the next estimate from the system.

If the estimate has failed for any reason, the system will print, with one exception, as many of the estimate reports as possible to help you analyze the problem. The one exception, the progress payment voucher, is only printed for successful estimates that are eligible for payment according to the system’s standards.

Processing the estimate is done by a series of computer programs that perform the following functions:

- Input edit of the CEM-6001, “Project-Record Estimate Request.”
- Select from the computer file the extra work bills that will be used to generate this estimate.
- Select from the computer file the contract transactions that will be used to generate this estimate.
- Process the contract change orders.
- Process contract items.
- Process deductions.
- Conduct miscellaneous computations.
- Generate reports.

5-103G Approval of Estimates

The authority to approve an estimate depends on the type of estimate being run. The following is the general outline and method for approving contract estimates.

5-103G (1) The Resident Engineer

After an estimate has been run, the resident engineer must approve it before the process of payment is continued. To expedite payment, the resident engineer can approve through a memo, form letter, or telephone call with subsequent written confirmation to the district office.

5-103G (2) The District Director

At the time the estimate was produced, so was Form FA 729A, “Progress Payment Voucher.” If the estimate is a final estimate, an individual who has been formally delegated by the district director to do so must sign the form.

5-103G (3) Flagging an Estimate for Payment

Flagging an estimate in the computer system for payment indicates that Form FA 729A has been verified and approved.

For payments on after acceptance estimates, semifinal estimates, and final estimates, the Division of Construction progress pay coordinator must flag the estimates in the computer system for payment after the district’s flagging.

5-103H Reports Available Through CAS

CAS provides many reports that must be requested specifically. Normally, resident engineers must request reports through the district construction office. Use Form CEM-6002, “Contract Administration System (CAS)-Report Requests,” to obtain the reports. The following are the instructions for completing Form CEM-6002. A sample of Form CEM-6002 is included in the appendix.

5-103H (1) District (XX) Estimate Status

This report, which is also available statewide, provides information on the pay status of each contract in the district. For each contract, the report includes the following:

- Contract number
- Date of last estimate processed (if there was one)

- Number of the estimate
- Number of days elapsed since the estimate was processed
- Type of estimate
- Pay status and date paid (if paid)
- Date on which the payment voucher was approved
- Resident engineer's name and phone number
- Responsible unit
- Password

5-103H (2) Project Management

The project management report is for use by the district office and Division of Construction managers. This report consists of the following two separate reports that are produced whenever "Project Management" is requested.

5-103H (2a) The Project File Status Report

This report lists all contracts in the district (or statewide) that are on the computer's active list. For each contract, the report provides the following information:

- Contract number
- Status
- Date bids were opened
- Date of award
- Date of approval
- Date of acceptance
- Bid amount
- Name of contractor

After bid opening, projects are added to the list automatically. After the final estimate and approvals from the districts and the disbursing office, the Division of Construction removes the projects from the list.

5-103H (2b) The Exceptional Contracts Report

This report lists all contracts for which the following applies:

- More than 60 days have elapsed since the bid opening.
- More than 10 days have elapsed since the completion date and the contract needs an acceptance date.
- More than 45 days have elapsed since completion, but the proposed final estimates have not been run.
- More than 180 days have elapsed since completion, but the final estimates have not been run.

5-103H (3) District (XX) Project Status

This report is for use by construction managers. It lists all active contracts, and for each contract, provides the following information:

- Contract number
- Contractor's name and county-route-kilopost
- Date of the last estimate
- Percent complete
- Percent of time elapsed
- Construction allotment
- Total amount paid to date
- Estimated final cost
- Estimated final contingency balance

5-103H (4) Progress Payment-Work Done by Office of Structure Construction (Copies)

This report is for use by the Office of Structure Construction. For details, see Volume I, Section 6, of the *Bridge Construction Records and Procedures Manual*.

5-103H (5) Project Record-Estimate (Copies)

A request for estimate copies will produce all of the documents that were produced automatically during the previous estimate's run. Normally, therefore, you should not need to order copies through this program. For the estimate, the report contains the following information:

- Schedule of extra work
- Schedule of deductions
- Project record-estimate
- Project status
- Progress payment voucher

5-103H (6) Status of Contract Items

Normally, the district office requests this report monthly for all ongoing contracts. The report must be filed in Category 60, "Contract Administration System Inputs and Reports."

For this report, the system prints one line of information for each contract item and summarizes the net effect of all contract transactions that have been entered against the item. This report allows the resident engineer to review each item and determine whether quantity balances and anticipated changes, among other things, are necessary.

If any particular number on the report seems questionable, the project record item sheets provide supporting detail. For example, if the approved quantity differs from the bid quantity, the project record item sheets describe, under the item number, any changes due to contract change orders.

When applicable, take particular care to flag an item “COMPLETE” (using the item final balance transaction on Form CEM-6001) so that an accurate project status will be produced. Remember, flagging an item “COMPLETE” does not mean that contract item transactions will no longer be accepted; it means only that you have commanded the system to keep the item in balance at all times.

5-103H (7) Project Record Item Sheet

Normally, the district office requests this report monthly for all ongoing contracts. The report must be filed in Category 60.

With the following exceptions, the project record item sheets list every contract transaction entered into the system since the beginning of the contract:

- Item and contract change order final balance transactions will appear only on the report following the next estimate. Thereafter, they are dropped from the report.
- Miscellaneous anticipated change transactions also appear only on the report following the next estimate.

The report lists the contract transactions first by the estimate number on which they were paid and then by the page and line number of the input form. The total to date will be printed.

This is a cumulative report. Do not retain previous issues of this report in the project files. However, one issue of the report, usually the one requested immediately after all final quantities have been paid, must be retained in the project’s files.

5-103H (8) Status of Contract Change Orders

Normally, the district office requests this report monthly for all ongoing contracts. The report must be filed in Category 60, “Contract Administration System Inputs and Reports.”

This report is similar to the status of contract items, which allows the engineer to review each contract change order.

Use the report to determine when supplemental contract change orders will be necessary to complete the work. The report also facilitates a review of those contract change orders where a credit is due Caltrans.

When applicable, flag contract change orders “COMPLETE” (using the contract change order final balance transaction) so that an accurate project status can be produced. Similar to flagging a contract item, flagging a contract change order “COMPLETE” means only that you have commanded the system to keep the contract change order in balance at all times.

5-103H (9) CCO Master Listing

Normally, the district office requests this report monthly for all ongoing contracts. The report must be filed in Category 60.

This report summarizes all contract change orders stored in the computer file. It also contains the contract change order time extension and contract change order category code. The report lists each individual supplement with all the information the system contains. Do not retain previous issues in the project’s files. However, one issue, usually the one requested immediately after final payment has been made on all contract change orders, must be retained in the project’s files.

5-103H (10) Bridge Quantities by Structure

This report is for use by Office of Structure Construction personnel. It is available on all projects for which Form CEM-6003, “Progress Pay-Estimate Project Initiation or Update,” has been filed. The filing of this form indicates a structure work amount and structure numbers have been entered for the contract transaction in accordance with the instructions in Volume 1, Section 6 of the *Bridge Construction Records and Procedures Manual*.

5-103H (11) District (XX) Status of Anticipated Changes

This report is for use by the district and Division of Construction managers.

5-103H (12) Project Record-Estimate (Dummy)

A request for this item will produce the same form that was produced automatically when Form CEM-6003, “Progress Pay-Estimate Project Initiation or Update” was filed.

This form is identical to a project record-estimate, except that it does not contain an estimate number or dates and no entries appear under “This Estimate” or “Total Estimate.” It is a blank estimate form, valuable only if it became necessary to make an estimate manually.

5-103H (13) Contract Contents Report

This report contains information that is currently in the file as a result of automatic entries or entries from Form CEM-6003 “Progress Pay-Estimate Project Initiation or Update.”

Most of the information in this report is included already in other reports and forms that are produced automatically. Therefore, you do not need to request it routinely.

5-103H (14) Contract Contents Report-Contract Item Records

This report provides the following information:

- Contract item number
- Contract item index number
- Item description
- Unit of measure
- Bid price
- Bid quantity
- Bid amount
- Amount overbid
- Void items
- Plant establishment items

Most of the information in this report is included already in other reports and forms that are produced automatically. Therefore, you do not need it for routine contract administration.

5-103H (15) Contract Contents Report-Contract Progress

For each contract item, this report includes a detailed analysis of the current and prior quantities and payment status. It also summarizes all other payments or deductions as well as data on contract time. The information in this report is included already in various other reports that are produced automatically. Therefore, you do not need it for routine contract administration.

5-103H (16) DEWRs in Holding File

This report lists extra work bills that are in the holding file for all contracts in the district. If there are reports in the holding file, process supplemental contract change orders to provide additional funds. The system will then automatically release the bills for the next estimate.

5-103H (17) Daily Extra Work Report

Copies of daily extra work reports are produced under the procedure outlined earlier in this section under “Extra Work Billing.” You can obtain copies by using the second page of the report request form.

5-103H (18) Rental Rates and Codes for Miscellaneous Equipment

This report provides a listing of equipment codes and related descriptive information for equipment that is not included in the *Labor Surcharge and Equipment Rental Rates (Cost of Equipment Ownership)* book.

5-103H (19) Reports for the Office of Structure Construction

In addition to the reports discussed above, CAS provides reports for the Office of Structure Construction. For details, see Volume I, Section 6, of the *Bridge Construction Records and Procedures Manual*.

5-103I Field Audits by Accounting Office

In accordance with instructions from the Division of Administrative Services, personnel from the Accounting Office will periodically review record-keeping procedures for construction projects. The accounting reviewer will prepare a report of the findings, a copy of which will be sent to the deputy district director of construction and the resident engineer.

District construction must then report back to the Accounting Office, stating what actions it took in response to the report’s recommendations. If the district’s actions result in a dispute, the deputy district director of construction will resolve the dispute

5-104 5-104 Final Construction Project Records

Final Construction Project Records

5-104A General

Construction project records consist of all material in the construction files, whether in the field office, the district construction office, or the Division of Construction office. This section contains guidelines for the disposition of construction project records after Caltrans makes the final payment. This section also provides guidelines for allowing public access to construction project records and for producing a set of as-built plans for each completed construction project. In addition to construction project records, the district keeps a project history file. For information about this history project file, see Chapter 7, “Uniform File System,” of the *Project Development Procedures Manual*.



5-104B Public Access to Project Records

The California Public Records Act permits anyone to obtain any written information relating to the conduct of the public's business that is prepared, owned, used, or retained by any state agency, regardless of the physical form or characteristic of the writing. Although the act includes exemptions for certain categories of records, most construction project records fall within the description of documents that must be produced upon proper demand. Except for preliminary drafts or notes that are not retained in the ordinary course of business, permanent project records that are reasonably identified are subject to inspection and copy.

Records exempt from disclosure include the following:

- Estimated project cost before bidding.
- Contract claim analysis.
- Personal information, such as home addresses, telephone numbers, medical records, and similar files, the disclosure of which would constitute an unwarranted invasion of personal privacy.
- Accident reports. If accident reports produced by another agency are requested, such as accident reports by the California Highway Patrol, refer the requester to the other agency.

If copies of payroll records are requested, see Section 7-1.01A(3), "Payroll Records," of the *Standard Specifications* for the procedures to follow.

Resident engineers should refer all requests for copies of any records to the district construction office and follow procedures established in the district for copying and charging for record copies.

Allow contractors and subcontractors to review records used to determine contract payment in the construction field office.

5-104C Disposition of Construction Project Records

District construction personnel who are responsible for the disposition of construction project records must coordinate their activities with the district records officer.

The district construction office must establish a procedure for handling construction project records. This procedure must meet Caltrans record keeping policy and achieve the following objectives:

- Relieve the resident engineer of the responsibility for storing the records before or at the time final payment is made.
- Avoid unnecessary long-term storage of duplicate copies.
- Before the records are destroyed, transfer material that has historical value to the project history file.
- Retain construction project records as follows:
 1. For projects that involve federal participation, retain the records for a minimum of three years after submission of the final voucher.
 2. For projects that do not involve federal participation, retain the records for a minimum of three years after the date on which the final estimate is scheduled for payment.

3. For projects on which some legal question exists, such as a pending claim, a labor compliance case, or litigation, retain the records for three years after settlement. The district construction office must send a memorandum to the district records officer to hold these records until further notice.

When the district no longer needs the records in categories 1, 2, 3, 4, 7, and 28, destroy them. Do not retain them as part of the project construction records.

After records from the resident engineer's office are sent to the district construction office, eliminate duplicate records.

Copies of Form CEM-6301, "Contract Acceptance," and the final Form CEM-2701, "Weekly Statement of Working Days," are sent to the progress pay coordinator in the Division of Construction.

When records are sent from the district construction office to the State Record Center or to another district, prepare a transmittal list specifying the contents of each box. In a separate file in the district construction office, retain a copy of the transmittal list.

The Division of Construction also retains project records to ensure that adequate records are available to defend Caltrans in civil suits, especially those related to contractor's claims. After projects have been completed, the Division of Construction transfers files listed in the current "records retention schedule" for the Division of Construction to the State Records Center.

The *Bridge Construction Records and Procedures Manual* should be referenced for bridge and structure's related records that are transmitted to the Office of Structure Construction at the completion of the project for permanent storage.

5-104D As-Built Plans

Districts are responsible for all as-built road plans, and the Office of Structure Design is responsible for all as-built structure plans. To handle as-built plans, use the following procedure:

The district design unit will give the resident engineer full-size prints of all road plans. Prints of structure plans will be supplied to the structure representative. The plans may also be transmitted in electronic form when field forces have the capability of computer-aided drafting and design (CADD). As-built information is recorded on the full-size drawings or recorded on a set of contract plans using CADD.

Each sheet of as-built plans must be clearly identified as such. All sheets upon which changes are made must contain the name of the resident engineer or structure representative.

5-104D (1) District Procedure on As-Built Plans

The district will maintain a set of original project plan sheets. Field changes will be made on full-size prints or in a field CADD system and afterwards transferred to the original CADD files in the district office. The set of plans, with changes delineated by the district design unit, becomes the as-built plans.

To attain uniformity in final project plans, include the following data on the as-built plans:

- Contract change order number.
- Revisions in alignment and right of way.
- Grade revisions in excess of 30 mm.

- Changes in length, size, flow line elevations, and station of culverts. When alternate types of culverts are permitted, show which alternate was used.
- Drainage changes.
- Location of sewers, conduits, and other features.
- Location of monuments, bench marks, freeway fences, and gates.
- Revision of typical cross sections.
- Changes in pavement lanes, tapers, ramps, frontage roads, road connections, driveways, sidewalks, islands, and median openings.
- Curb and gutter changes.
- Electrical conduits, pull boxes, and service points.
- Revision in location of utility crossings and irrigation crossovers.

Do not show the following on as-built plans:

- Construction quantities.
- Property fences.
- Miscellaneous small features, such as markers and delineators, which are readily changed by maintenance forces.

The resident engineer must complete the as-built plans as soon as possible after work is completed, but no later than 60 days after contract acceptance.

After the district design unit has completed the transfer of as-built information on the final as-built drawings, the unit will return the plans to the resident engineer for review and signature of final approval. For the processing and disposition of as-built plans after the construction review, see Chapter 15, “Final Project Development Procedures,” of the *Project Development Procedures Manual*.

5-104D (2) *Procedure on As-Built Plans for Bridges and Structures*

The Office of Structure Construction must handle structure as-built plans in the following manner:

- From the resident engineer, obtain full-size prints of all sheets with “Structure” signature blocks. If these prints are not available from the resident engineer, the structure representative must contact the Office of Structure Design.
- The structure representative will make the as-built corrections to these prints and forward them to the Sacramento office of the Office of Structure Construction. These corrected prints must be forwarded to the Sacramento office as soon as possible after completion of the structures, but no later than 30 days after the completion of the project.
- For prints of projects consisting solely of roadside rests or maintenance facilities, the Sacramento office of the Office of Structure Construction must forward the prints directly to the Office of Structure Design, documents unit. All other projects must be forwarded to the Office of Structure Maintenance and Investigations, which determines which sheets should be microfilmed for the structure files. In identifying prints to be processed, the Office of Structure Maintenance and Investigations must include all sheets prepared by the Office of Transportation Architecture. This office will then forward all the prints to the Office of Structure Design, documents unit.

- Those prints not identified for filing by the Office of Structure Maintenance and Investigations will be forwarded to the appropriate district office for the preparation of as-built plan sheets. The Office of Structure Design will make the as-built corrections on the original plan sheets. If the original plan sheet is not presently stored in the Office of Structure Design, it may be obtained from the district.

On state projects that do not have a representative from the Office of Structure Construction, the resident engineer must make the as-built changes on the full-size prints bearing “Structure” signature blocks. As soon as possible after completion of the structures, forward the prints to the Office of Structure Construction in Sacramento. The procedure outlined above must then be followed.

When the corrections have been made, the as-built plan sheets will be forwarded to headquarters microfilm services unit for microfilming and distributing.

On projects funded by others, where the local entity or private entity is the sponsor, follow the procedure for as-built plans for bridges and structures described in the Office of Special Funded Projects’ *Information and Procedures Guide* and the *Encroachment Permits Manual*.

For additional guidelines and details for completing structure as-built plans, see the *Bridge Construction Records and Procedures Manual*.

5-104D (3) Projects Not on State Highways

On all district-administered projects not on state highways, the information to be included on as-builts will remain the same as for contracts on state highways. The district will be fully responsible for completing as-built project plans and forwarding them to the local agencies. If the district desires for its own records, these plans may be sent to headquarters microfilm services unit for microfilming before being returned to the local government.

The engineer responsible for structure work will place as-built corrections on structure plans of all state and federally funded projects for local roads and streets. On Caltrans administered contracts, follow normal Caltrans procedures for processing these plans. On locally administered contracts, the engineer responsible for structure work will provide the Office of Structure Design, Local Assistance Section, a set of original tracings or duplicates of reproducible quality with as-built corrections. After microfilming, return these tracings or duplicates to the local agency.